NOTES ON BRITISH ICHNEUMONINAE WITH DESCRIPTIONS OF NEW SPECIES

(HYM., ICHNEUMONIDAE)

BY

J. F. PERKINS

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SYNOPSIS

The paper deals with the British species of Ichneumoninae to be added to, and deleted from the list given by Kloet and Hincks in their *Check List of British Insects*. Two genera and sixteen species are described as new and three new names are proposed. In all, 110 trivial names are deleted from the list and 105 are added; this includes changes due to direct synonymy. Some new synonymy is included. Finally a new check list of British Ichneumoninae is given.

INTRODUCTION

The present paper was written in order to clear the way for a handbook on the British species of Ichneumoninae. I have therefore given almost no notes on the characters for distinguishing the species which are added to the British list of Ichneumoninae.

neumoninae as given in Kloet and Hincks (1945), as these will appear in the keys in the handbook. I have, however, given some information on certain of the species that I consider should be excluded from the British list, where these have a wider interest.

I have been much aided in this work by the very kind co-operation of many workers who have sent me material and given me information. I wish to thank the Director of the Institut Royal des Sciences Naturelles de Belgique for allowing me the opportunity of examining the Wesmael collection, and Mons. A. Collart for the facilities he placed at my disposal; the officials of the Linnean Society for allowing me to examine certain Linnean types; Mr. E. A. Ellis of the Castle Museum, Norwich, for the loan of the Bridgman collection of Ichneumoninae; the officers of the Suffolk Naturalists who presented the Morley types of Ichneumonidae to the British Museum and who have lent me the Morley collection of Ichneumonidae; Mr. A. A. Cumming of the City Museum and Art Gallery, Plymouth, for allowing me to examine and borrow material from the Bignell collection; Mr. H. C. S. Halton of the Natural History Museum, Wollaton Hall, Nottingham, for facilities to examine, and to borrow, types and material from the L. A. Carr collection of Ichneumonidae; Miss G. Roche of the National Museum of Ireland for the loan of specimens from the Johnson collection; Prof. C. H. Lindroth of the Lund University Museum for the loan of specimens from the Thomson collection; Mr. A. W. Stelfox for the loan of his collection of Phaeogenini; Dr. O. W. Richards for the loan of his collection of Ichneumoninae; Dr. W. D. Hincks for the loan of material of Platylabini; and Mr. G. J. Kerrich and Mr. G. Heinrich for information on various points, including types.

Throughout the paper names which are given after an equals sign are the valid

names, while those given after syn. are synonyms.

References to original descriptions are not quoted in the text, but they can be found by consulting Dalla Torre (1902), Morley (1903) and Schmiedeknecht (1902 and 1928–1932); references to species described after 1932 will be found in section XIII at the end of the paper.

I. NOTES ON THE LINNEAN TYPES OF ICHNEUMONINAE

Roman (1932) has discussed the Linnean types of Ichneumonidae, but more recent work has made it necessary to re-assess certain of them, and the results are given below, in so far as they affect the British list of Ichneumoninae.

Ichneumon fossorius L., 1758

= Amblyteles fossorius (L., 1758).

syn. Amblyteles viridatorius (Gravenhorst, 1820). (syn. nov.)

Roman has synonymized fossorius with Amblyteles subsericans (Gravenhorst). The type of fossorius is a male, and this can be distinguished at once from subsericans by the ventral fold on the sternites. The Linnean specimen has a fold on sternites 2-4. I have seen no specimen of Amblyteles fossorius (L.) from the British Isles.

Ichneumon molitorius L., 1761.

Roman suggested that the Linnean species belonged to the form described as crassifemur by Thomson. However, I regard crassifemur as being a species distinct from molitorius L. Thomson, distinguished not only in the characters of the hind leg given by Thomson, but also in having the groove on the underside of the middle femur with only very sparse hairs. The Linnean specimen agrees with Thomson's interpretation of molitorius. I have examined type material of crassifemur from the Thomson collection.

Ichneumon comitator L., 1758.

= Coelichneumon comitator (L., 1758).

syn. Ichneumon restaurator F. Wesmael, 1844.
Ichneumon lineator F. Gravenhorst, 1820, nec F., 1781.
Ichneumon ferreus Gravenhorst, 1829.

I regard *Ichneumon ferreus* as the form of *C. comitator* with the femora and tibiae red, but distinct from *Coelichneumon purpurissatus* (see p. 138).

II. THE STEPHENS TYPES OF ICHNEUMONINAE

I have re-examined the types of Stephens that had already been selected by Claude Morley (see Morley, 1902), and also I have been able to recognize further types which previously had remained unknown. I am therefore giving a complete list of the species of this sub-family described by Stephens in 1835 in his *Illustrations of British Entomology*; or a synopsis of Indigenous Insects: Mandibulata, 7:126–207 and 269–273.

The following changes of nomenclature are necessary:

Coelichneumon nigerrimus (Stephens, 1835) for Coelichneumon derasus (Wesmael, 1844).

Cratichneumon albifrons (Stephens, 1835) for Cratichneumon gravenhorstii (Boyer de Fonscolombe, 1847).

Cratichneumon fabricator maculifrons (Stephens, 1835) for this British sub-species.

Coelichneumon eximius (Stephens, 1835) for Coelichneumon coeruleus (Cresson, 1864).

The notes on the types of *Ichneumon* and *Trogus* are given in the order in which the species are placed in Stephens' work.

Ichneumon fasciatus

Type Hym. 3b 1580 & selected by Morley.

= Hepiopelmus leucostigmus (Gravenhorst, 1820).

The same specimen is the type of Ichneumon maculiventris Desvignes.

Ichneumon nigerrimus

Type Hym. 3b 1721 of selected by Morley.

= Coelichneumon nigerrimus (Stephens, 1835).

syn. Coelichneumon derasus (Wesmael, 1844). (syn. nov.)

This name is not now invalidated by *Ichneumon nigerrimus* (Scopoli). (= Sphex nigerrimus Scopoli = Anoplius nigerrimus (Scopoli)).

Ichneumon compunctor

Type Hym. 3b 1814 & selected by Morley. = Ichneumon cessator Mueller, 1776.

Ichneumon rufipes

Type Hym. 3b 1582 & selected by Morley.

= Polytribax curvus (Schrank, 1802). (syn. nov.) (comb. nov.)

syn. Ichneumon curvus Schrank, 1802.

Cryptus rufipes Gravenhorst, 1829.

Phygadeuon curvus (Schrank); Gravenhorst, 1829.

Plectocryptus curvus (Schrank); Thomson, 1873 and 1874.

Microcyptus curvus (Schrank); Thomson, 1883.

Mesocryptus (lapsus for Microcryptus) curvus (Schrank); Thomson, 1897.

Plectocryptus curvus (Schrank); Schmiedeknecht, 1905.

Confusion has been caused in the interpretation of this species by the fact that one specimen from Stephens' collection (not the type) has the head and thorax of Polytribax curvus male, and on to this has been glued the abdomen of a female Eurylabus torvus Wesmael. The species with oval spiracles which were placed in Microcryptus by Thomson (1883) and the related species which were placed by Schmiedeknecht in Plectocryptus are congeneric with the North American species of Polytribax.

Ichneumon maculifrons

No type.

= Cratichneumon fabricator maculifrons (Stephens, 1835).

The specimen selected by Morley as the type has the hind femur red and thus does not agree with the original description, but from the description this species is most probably *Cratichneumon fabricator* (F.) as stated by Morley, and I propose to use this name for the British subspecies of *fabricator*. The specimen which Morley selected, however, does belong to the same subspecies.

Ichneumon maculicornis

Type Hym. 3b 1585 \mathfrak{P} selected by Morley.

= Phaeogenes maculicornis (Stephens, 1835).

syn. Phaeogenes scutellaris Wesmael, 1844.

Ichneumon cognatus

No type. 3. Given as a synonym of Amblyteles subsericans (Gravenhorst, 1820) by Desvignes (1856). Males of this species as well as of the closely related A. elongatus Brischke are present in the Stephens collection.

Ichneumon crassicornis Stephens nec Rossi, 1794.

Type Hym. 3b 1725 of selected by Morley. = Probolus concinnus Wesmael, 1853.

Ichneumon femorator

Type Hym. 3b 1581 3 selected by Morley.

= Probolus culpatorius (L., 1758).

syn. Probolus alticola (Gravenhorst, 1820).

Ichneumon fulvipes

No. type. Given as a synonym of annulator F., 1793 (= culex Mueller, 1776) by Desvignes (1856). This agrees with the description.

Ichneumon albifrons

Type Hym. 3b 1565 & selected by Morley.

= Cratichneumon albifrons (Stephens, 1835).

syn. Ichneumon gravenhorstii Boyer de Fonscolombe, 1847, nec Wesmael, 1836, nec Guérin-Ménéville, 1838. (syn. nov.)

It is not conspecific with *Ichneumon impugnator* Wesmael, of which I have examined the syntypes, which has a conspicuously longer malar space:

Ichneumon binotatus

No type.

= Stenichneumon lineator (F., 1781). (syn. nov.).

Given as a synonym of *Ichneumon leucomelas* Gmelin (= Barichneumon albilineatus (Gravenhorst) by Desvignes, but the description cannot refer to that species. The male of Stenichneumon lineator (F.) agrees with the description and I regard binotatus as a synonym of this species.

Ichneumon bipunctorius

No type. Not given by Desvignes (1856). From the description = Barichneumon albilineatus (Gravenhorst, 1820).

Ichneumon cingulipes

Type Hym. 3b 1576 ♀ selected by Morley.

= Amblyteles oratorius (F., 1793).

Ichneumon microcephalus

Type Hym. 3b 1579 & selected by Morley.

= Ichneumon formosus Gravenhorst, 1829. (syn. nov.)

I follow Wesmael, who examined the type of formosus, in the synonymy of I. obsessor Wesmael with that species.

Ichneumon fulvoscutellatus

No type. The description obviously refers to a discoloured specimen, and since this was obtained in May, most probably to a species of *Ichneumon* that had hibernated. I have been unable to determine the species from the description. Morley has suggested that the name is a synonym of I. terminatorius Gravenhorst.

Ichneumon quadrinotatus

No type. The specimen which had been selected as the type by Morley is from the Desvignes collection. However, there seems no doubt that the species is a synonym of *I. gracilicornis* Gravenhorst, as given by Desvignes (1856).

Ichneumon concinnatorius

No type.

= Ichneumon terminatorius Gravenhorst, 1820.

Ichneumon dimidiatus

Type Hym. 3b 1574 \circ selected by Morley.

= Amblyteles pallidicornis (Gravenhorst, 1829).

Ichneumon diversorius

Ichneumon triangulator

No type.

= Amblyteles armatorius (Forster, 1771). ♀. Not quoted by Desvignes (1856).

svignes (1850).

No type.

= Amblyteles trifasciatus (Gravenhorst, 1829) teste Morley. Not given by Desvignes (1856).

Ichneumon eximius

Type Hym. 3b 1817 ♀ selected by Perkins.

= Coelichneumon eximius (Stephens, 1835).

syn. Coelichneumon coeruleus (Cresson, 1864). (syn. nov.)

There is a female of the North American Coelichneumon coeruleus from the Stephens collection bearing a label in the writing of F. Smith saying that it stood in the Stephens British collection. This specimen agrees entirely with Stephens' description and it thus seems certain that it is in fact the type of eximius.

Ichneumon erythrogaster Stephens nec Gmelin, 1790.

Type Hym. 3b 1720 ♀ selected by Morley. = Protichneumon coqueberti (Wesmael, 1848).

Ichneumon melanopyrrhus

Type Hym. 3b 1815 & selected by Perkins.

= Coelichneumon orbitator (Thunberg, 1822). (syn. nov.)

syn. Coelichneumon liocnemis (Thomson, 1888).

Morley has synonymized this species with *Coelichneumon castaneiventris* (Gravenhorst), but I have seen no specimens of that species from Britain with the hind femur and tibia red, as is given in the original description of *melanopyrrhus*.

Except that Stephens does not mention the small white marks on the thorax, there would be no doubt that the species here described was *C. orbitator*. However, the single male of *orbitator* from the Stephens collection has the thorax covered in dirt and these marks obscured and, moreover, has the apex of the 3rd tergite red and the base of the 4th tergite black as given in Stephens' original description. I have therefore no doubt that this was the specimen that Stephens was describing and have selected it as the type.

Roman (1912) synonymized *C. liocnemis* (Thomson) with *I. orbitator* Thunberg; in 1914 he synonymized *I. ruficauda* Wesmael with this species, but *ruficauda*, of which I have seen the type series, is completely distinct. As Thunberg states that the legs are red, I have accepted Roman's synonymy of *orbitator* with *liocnemis*, *ruficauda* having legs for the most part black in the specimens I have examined.

Ichneumon castanopyga

Type Hym. 3b 1577 ♀ selected by Morley. = Amblyteles castanopyga (Stephens, 1835). syn. Amblyteles rubriventris Wesmael, 1854.

Ichneumon pyrrhopus

No type.

= Cratichneumon fabricator maculifrons (Stephens, 1835). (syn. nov.)

This species has been synonymized with *Cratichneumon fugitivus* (Gravenhorst), but from the description it is unlikely to be that species, as I have never seen a specimen of *fugitivus* with red hind femora. However, the earlier authors mixed this species with the forms of *fabricator* with a red abdomen, and it is most probable that the Stephens species is a synonym of *C. fabricator maculifrons* (Stephens).

Ichneumon gasterator

Type Hym. 3b 1567 \mathcal{P} selected by Morley. = Cratichneumon corruscator (L., 1758).

In the Stephens collection there is also a specimen of C. fugitivus (Gravenhorst)

labelled as gasterator; this no doubt is the form mentioned by Stephens with "posterior tibiae sometimes pitchy at apex, and reddish at the base."

Ichneumon femorator

Type Hym. 3b 1581 \mathcal{P} selected by Morley. = Colpognathus celerator (Gravenhorst, 1807).

Ichneumon rufator

Type Hym. 3b 1698 & selected by Morley.

= Phaeogenes semivulpinus (Gravenhorst, 1829). (syn. nov.)

Ichneumon abdominator

Type Hym. 3b 1816 ♀ selected by Perkins.

= Diadromus troglodytes (Gravenhorst, 1829). (syn. nov.)

The specimen was unlabelled as to species but had a label "New species" in Smith's handwriting. It is a peculiarly coloured specimen of *troglodytes* agreeing with Stephens' description.

Ichneumon picipes

No type. I have been unable to recognize this species from the description, though most probably it is a female *Phaeogenes*.

Ichneumon ruficollis

No type.

= Barichneumon sanguinator (Rossi, 1794).

This synonymy was given by Desvignes (1856).

Ichneumon rufescens

Type Hym. 3b 1564 \mathbb{Q} selected by Morley.

= Aoplus ratzeburgii (Hartig, 1838).

syn. Stenichneumon pictus (Gravenhorst) Morley.

Ichneumon cinctorius Stephens nec Fabricius 1775

Type Hym. 3b 1813 & selected by Perkins.

= Amblyteles indocilis Wesmael, 1844.

This type was not previously indicated. Morley (1902) attributes the species to Desvignes (who only re-described it), and selected a so-called type from the latter's collection. The two specimens are, however, conspecific.

Trogus atrocaudatus

No type. From the description = Callajoppa cirrogastra (Schrank, 1781). I have never seen a British specimen of C. exaltatoria (with which Morley synonymised it) in which the 4th tergite is testaceous.

Trogus dissimilator

No type. From the description = Ichneumon didymus Gravenhorst, 1829 (syn. bisignatus Gravenhorst), as suggested by Morley.

III. THE DESVIGNES TYPES OF ICHNEUMONINAE

Morley (1902) has given some notes on the Desvignes types, and all those types, which are in the British Museum, were selected by him. Heinrich (1937) has given further information on them. However, there were various problems left outstanding and it has now been possible to re-assess these. I have therefore included a complete list of the Desvignes types. The following names are at present valid:

Platylabus obator (Desvignes, 1856).

syn. Ichneumon obator Desvignes, 1856.

Ichneumon lautatorius Desvignes, 1856.

Ichneumon minutorius Desvignes, 1856.

syn. I. captorius Thomson, 1887. (syn. nov.)

Chasmias paludator (Desvignes, 1854.)

syn. Chasmodes paludicola Wesmael, 1857.

In the list of types which follows all but the last two species were described by Desvignes in 1856 in the Catalogue of the British Ichneumonidae in the British Museum.

Ichneumon maculiventris

Type Hym. 3b 1580, ♀.

= Hepiopelmus leucostigmus (Gravenhorst, 1820).

This specimen is also the type of Ichneumon fasciatus Stephens.

Ichneumon obator

Type Hym. 3b 1583, 3.

= Platylabus obator (Desvignes, 1856).

This is a distinct species and not a synonym of P. pedatorius (F.). It differs from pedatorius in having the epicnemia strongly raised on each side of the middle line, the distance between thyridiae: breadth of a thyridia = \mathbf{I} : at most \mathbf{I} :5; stigma black, hind femur black apically and segment \mathbf{I} of hind tarsus sub-equal to segments $\mathbf{I} + \mathbf{I} + \mathbf{I}$. I have taken it abundantly in June, flying around Galium in hedgerows.

Ichneumon crassorius

Type Hym. 3b 1693, 3.

= Ichneumon didymus Gravenhorst, 1829. (Heinrich, 1937).

I. inquinatus Wesmael (syn. brevigena Thomson) which Morley considered as conspecific with I. crassorius, is a completely distinct species.

Ichneumon relucens

Type Hym. 3b 1573, ♀.

= Amblyteles indocilis Wesmael, 1844.

Ichneumon cubicularis

Type Hym. 3b 1571, ♀.

= Amblyteles fabricii (Schrank, 1802).

syn. Amblyteles truncicola Thomson, 1888. (syn. nov.)

Ichneumon lautatorius

I have examined the type in the Curtis collection.

Ichneumon ancipterus

Type Hym. 3b 1722, 3.

= Amblyteles palliatorius (Gravenhorst, 1829.) (syn. nov.)

Ichneumon dubitatus

Type Hym. 3b 1572, 3.

= Amblyteles palliatorius (Gravenhorst, 1829). (syn. nov.)

Ichneumon flavocinctus

Type Hym. 3b 1570, 3.

= Ctenichneumon panzeri (Wesmael, 1844). (Heinrich, 1937).

Ichneumon minutorius

Type Hym. 3b 1702, ♂.

syn. Ichneumon captorius Thomson, 1887.

The female of this species was recorded erroneously as *rufidens* Wesmael by Desvignes. It is one of the species that was formerly lumped under "*Ichneumon raptorius*." I have examined 9 female and 2 male syntypes of *captorius* from the Thomson collection.

Ichneumon binotatus

Type Hym. 3b 1566, 3.

= Cratichneumon corruscator (L., 1758).

Ichneumon niveatus

Type Hym. 3b 1690, ♂.

= Aptesis arridens (Gravenhorst, 1829).

Ichneumon cinctorius

This species was described by Stephens (1835). It has been attributed to Desvignes by Morley (1902), but Desvignes only re-described it. The name is a primary homonym and the species is *Amblyteles indocilis* Wesmael.

Ichneumon rubedinis

Type Hym. 3b 1569, ♀.

= Ichneumon walkeri Wesmael, 1848. (syn. nov.)

This species is distinct from *I. vulneratorius* Zetterstedt, 1838 (syn. *dahlbomi* Wesmael), differing from it in having a weak but distinct scopa on the hind coxa, the central area of the post-petiole strongly and rather evenly, longitudinally striate, and the clypeus with coarse, widely spaced punctures. I am unable to distinguish *I. polyonomus* Wesmael, 1859, from *walkeri* except in colour and these probably represent only northern and alpine subspecies.

Hoplismenus semirufus

Type missing.

= Platylabops apricus (Gravenhorst, 1820). (Heinrich, 1937).

Ichneumon paludator

Desvignes, 1854, Trans. R. ent. Soc. Lond. n.s. 3:44.

Type Hym. 3b 1723, ♀.

= Chasmias paludator (Desvignes, 1854).

syn. Chasmodes paludicola (Wesmael, 1857). (Heinrich, 1937).

Ichneumon cambriensis

Desvignes, 1867, Ent. mon. Mag. 4: 130.

Type Hym. 3b 1602, 3.

= Phaeogenes stipator Wesmael, 1855.

IV. TYPES OF BRITISH ICHNEUMONINAE IN THE BRIDGMAN, MORLEY AND MARSHALL COLLECTIONS

The Bridgman and Morley types, for the most part, have not been examined by other workers. By far the greater number of the names refer to species which had already been described. The following names are at present valid:

Dicaelotus cameroni Bridgman, 1881.

Phaeogenes distinctus (Bridgman, 1887). (comb. nov.)

syn. Herpestomus distinctus Bridgman, 1887.

Platylabops pulchellatus (Bridgman, 1889).

syn. Ichneumon pulchellatus Bridgman, 1889.

Ichneumon rufidorsatus Bridgman, 1887.

Barichneumon heracleanae (Bridgman, 1884).

syn. Ichneumon heracleanae Bridgman, 1884.

Platylabus transversus Bridgman, 1889.

syn. Platylabus lativentris Thomson, 1894. (syn. nov.)

(a) The Bridgman Types of Ichneumoninae
The Bridgman types of Ichneumonidae are in the Castle Museum, Norwich.

Ichneumon pulchellatus Bridgman, 1889

= Platylabops pulchellatus (Bridgman, 1889). This is probably a synonym of *I. eupitheciae* Brischke, 1879.

Ichneumon rufidorsatus Bridgman, 1887

A distinct species, belonging to the genus Ichneumon s.s.

Ichneumon heracleanae Bridgman, 1884

= Barichneumon heracleanae (Bridgman, 1884). Closely related to peregrinator L., and with this perhaps better placed in a separate genus.

Platylabus transversus Bridgman, 1889

syn. Platylabus lativentris Thomson, 1894.

Dicaelotus cameroni Bridgman, 1881

A distinct species of *Dicaelotus*.

Herpestomus striatus Bridgman, 1881

= Oiorhinus pallipalpis Wesmael, 1844.

Herpestomus distinctus Bridgman, 1887

= Phaeogenes distinctus (Bridgman, 1887).

Diadromus formosus Bridgman, 1881

= Aethecerus longulus Wesmael, 1844.

Phaeogenes nitidus Bridgman, 1886

= Cratichneumon magus (Wesmael, 1855), J. (syn. nov.)

Phaeogenes similis Bridgman, 1881

= Thyraeella collaris (Gravenhorst, 1829). (syn. nov.) This is the form with little red on the thorax.

(b) The Morley Types of British Ichneumoninae Dinotomus spinosus Morley, 1903

Type Hym. 3b 1818, 3.

= Hoplismenus bidentatus (Gmelin, 1790). (syn. nov.)

Ctenichneumon plicatus Morley, 1903

Type Hym. 3b 1819, 3. = Spilichneumon occisorius (F., 1793).

Nematomicrus elliotti Morley, 1903

Type Hym. 3b 1820, \mathcal{Q} . = Eriplatys ardeicollis (Wesmael, 1844). (syn. nov.)

(c) The Marshall Type of Mesostenus maurus. Mesostenus maurus Marshall, 1873

Type Hym. 3b 1563, \mathcal{Q} . = Hoplismenus bidentatus (Gmelin, 1790). (syn. nov.)

V. THE L. A. CARR COLLECTION OF ICHNEUMONIDAE

Through the kindness of Mr. H. C. S. Halton of the Natural History Museum, Wollaton Hall, Nottingham, I have been able to examine the L. A. Carr collection of Ichneumoninae, and to borrow for study specimens of special interest. In the course of this work it has become clear that specimens of continental origin were mixed with the Lichfield specimens. Under Protichneumon fuscipennis (Wesmael) (= Amblyjoppa fuscipennis) are a female labelled "Lichfield 1915 teste Habermehl" and a male, "Lichfield 1916 teste Roman" of the continental form of this species with almost black wings; in the Harwood collection also were I male and 3 females "Lichfield 1917" and I female "Lichfield 1919" of the same form received from L. A. Carr. This form is abundantly distinct, and in the many specimens of this species that I have seen from the British Isles none has approached this wing colour. There were also normally coloured British specimens in the Carr collection. Under Ctenichneumon inspector (Wesmael) were a single pair; the female agrees completely with two specimens of a very red, central European form of Ctenichneumon messorius (Gravenhorst) which were bought by the late D. S. Wilkinson from Schmiedeknecht, and which were also named inspector by Schmiedeknecht. I have seen much material of messorius from this country, and never any specimens approaching this form in colour; the male is a specimen of Amblyteles uniguttatus (Gravenhorst), a species of which I have seen no British specimens from other collections. Under Amblyteles uniguttatus there is a specimen of the ordinary British form of Ctenichneumon messorius.

I feel, therefore, that at present it is better to exclude from the British list those species which are included solely on the basis of the Carr collection. It is noteworthy that most of the doubtful specimens are of red forms, whereas in England specimens are most usually darker than central European forms. Up to 1919 Carr used short black pins for pinning his material; from 1921 to 1923 all are pinned on continental steel pins.

It is of interest to note that the male determined as *Eupalamus lacteator* (Gravenhorst) by Pfankuch is in reality a male of *Cratichneumon clarigator* (Wesmael); I have, however, seen material of the true *lacteator* from the British Isles. Otherwise, I have not re-examined the general records from the Carr collection.

The Types of Ichneumoninae in the L. A. Carr Collection

Three species of Ichneumoninae werè described from the L. A. Carr collection. All are synonyms.

Cratichneumon fallax Habermehl, 1923

= Cratichneumon varipes (Gravenhorst, 1829). (syn. nov.) syn. Ichneumon anglicanus Schmiedeknecht, 1929.

Some of these specimens are a little discoloured by cyanide. Cratichneumon varipes stands in the collection under varipes, fallax and magus.

Barichneumon carri Habermehl, 1923

= Barichneumon gemellus (Gravenhorst, 1829). (syn. nov.) This is rather a dark form, as are most British specimens.

Amblyteles duplicator Roman, 1923

= Hybophorellus injucundus (Wesmael, 1854). (syn. nov.)

The type of duplicator is a female. There is also a single male of Hybophorellus injucundus in the collection. (A number of the very interesting species present in the collection are represented by a single pair.) I have not seen the female type of injucundus, which was described from a specimen sent to Wesmael from the Stockholm Museum; this is described as having the hind legs darker than in the above specimen, but otherwise, in structure and sculpture, agreeing very well. I have seen two other specimens of the male of this species, both from Schmiedeknecht, the one purchased by Wilkinson and the other from the Morley collection.

Hybophorellus injucundus is, of course, quite distinct from H. aulicus (Gravenhorst,

1829).

VI. SPECIES TO BE DELETED FROM THE LIST OF BRITISH ICHNEUMONINAE

In the course of revising the British species of Ichneumoninae it has been necessary to re-assess the records of certain of the earlier British authors. No material could be named at all adequately until Wesmael published his *Tentamen dispositionis methodicae Ichneumonum Belgii* in 1844. Prior to that date the descriptions of Ichneumoninae were given with almost no idea of any comparsion of species, and the groupings were based on colour. Wesmael was the first author to divide the subfamily on structural characters, and revolutionized the systematics of the group. The next major advance is found in the works of C. G. Thomson, whose discovery of further structural characters pointed the way to a much sounder appreciation of

the group. Unfortunately the workers who immediately followed Thomson made no use of many of the characters that he indicated as of great significance, and the study of the Ichneumoninae continued with the description of great numbers of species, described with the use of a very limited range of characters and with great emphasis on colour. Further, almost no examination of types was undertaken. In recent years Gerd Heinrich, who has correlated many of the European species, genera and tribes with exotic forms, has again made a great contribution to the study of this subfamily.

For myself, I have found it best to base my determination of species, in greater part, on the work of Thomson, together with Wesmael's descriptions. Also Wesmael examined much of the type material of the Gravenhorst species, which are, at the present time, not available for study, and thus the value of his collection is greatly enhanced for research purposes. I was most fortunate in being able to spend a fortnight in Brussels studying the Wesmael collection, which naturally gave me much greater confidence in the interpretation of these species. A point of considerable interest was that in the majority of cases it had been possible to determine the Wesmael species correctly from the published work of Thomson and Wesmael. A certain number of these species I had failed to determine from the keys of Berthoumieu and Schmiedeknecht; and from the material that has been sent me by other workers, and the determinations that I have seen given by them, I have found that others, too, have experienced the same difficulties.

Desvignes, in 1856, examined the Stephens collection which had come to the British Museum in 1853. It is evident from the labels on certain of the specimens that where Desvignes did not agree with the Stephens determinations, he placed the specimens under the species that he thought correct, and if otherwise unknown to him, he excluded these species from his catalogue. Where I have seen no further specimens of these species in the collections that I have examined, I also propose to exclude them from my consideration of British species. In addition, I propose to exclude those species first recorded by Marshall, the present whereabouts of which is unknown.

Stephens frequently gave descriptions of the other sex of species, drawn from Gravenhorst's description, if he thought that he had recognized one sex of the species. Where it was later shown that Gravenhorst had wrongly associated the sexes, Marshall recorded both names in his list, based on the descriptions given by Stephens. Hence a number of species were brought into the British list for which no British specimens ever existed.

I have only been concerned with those species of which no subsequent material has been obtained. There are a number of species which were incorrectly determined by the earlier authors but of which genuine material has been captured in recent years.

Below are given the names of the 86 species that I consider should now be dropped from the list as given by Kloet and Hincks (1945).

Trogus spinosus Morley, 1903

= Hoplismenus bidentatus (Gmelin, 1790).

ENTOM. III, 4.

Hoplismenus bispinatorius (Thunberg, 1822)

The type of this species is conspecific with *H. perniciosus* Gravenhorst, 1829, according to Roman (1912). I follow Thomson in regarding *perniciosus* as distinct from *bidentatus* (Gmelin). It is the latter species which is present in Britain.

Hoplismenus maurus (Marshall, 1873)

= Hoplismenus bidentatus (Gmelin, 1790).

Hybophorellus aulicus (Gravenhorst, 1829)

This species was introduced by Marshall, but the location of the specimen on which the record was based is unknown to me. Reference to Wesmael's description of Amblyteles injucundus will show that it is not a synonym of aulicus. It is described as having the cheeks obliquely striate, and I regard Amblyteles duplicator Roman as being a synonym of injucundus. I have not seen the types of injucundus or aulicus. A single male of Amblyteles injucundus (Lichfield, 1923; teste Schmiedeknecht) and the type of Amblyteles duplicator Roman (Lichfield, 1922) are in the Carr collection.

Protichneumon fusorius (L., 1761)

This name seems originally to have been included in the British list as the identification of Amblyjoppa fuscipennis (Wesmael), and this latter species appears as fusorius in the early collections that I have seen and also in the Morley collection. I believe that the inclusion of similatorius (F.) by Marshall was due to his thinking this name correct for part of the fusorius of British authors. Bignell had a male of I. primatorius Forster from Kilmore, Ireland, and a female of Amblyjoppa fuscipennis, ex Ch. porcellus, 18.vi.1887 (J. H. Wood), under this name. In the Carr collection the single male (1915; teste Habermehl) and a single female (1916; teste A. Roman) are specimens of pisorius (L.), and it would appear therefore that Carr wrongly transcribed the name.

Although the female of fusorius is completely distinct from that of Amblyjoppa fuscipennis, the males of these two species are difficult to differentiate. The best characters on which to distinguish them are the form of the lower margin of the mesopleurum which, when viewed dorsolaterally, is more strongly sinuate in fusorius than in fuscipennis, and the pronotal collar which centrally is sub-equal in length to the distance between the posterior ocelli, whereas in fuscipennis it is conspicuously shorter than this distance; fusorius has the ventral fold clearly developed on sternites 2 and 3 of the gaster, whereas in fuscipennis it is only clearly developed on sternite 2; also the hind tarsus is distinctly infuscate apically in fusorius. P. fusorius male is of course at once distinguished from the other Western European species of Protichneumon in having no ventral plica on sternite 4 of the gaster.

Protichneumon disparis (Poda, 1761)

Stephens recorded this species under *Trogus flavatorius* Gravenhorst, 1829. The species, however, was not included by Desvignes in his catalogue and I also exclude it.

Coelichneumon sugillatorius (L., 1758)

Stephens recorded *C. cyaniventris* (Wesmael, 1858) as this species. The Desvignes specimens and those in the Morley and Bignell collections were also all *cyaniventris*.

Coelichneumon sinister (Wesmael, 1848)

First recorded by Marshall, who included it as being the male which Gravenhorst associated with the female of *leucocerus* and which Wesmael later described as *sinister*. Stephens quoted a description of both male and female of *leucocerus*, and it appears that Marshall included the species on this evidence. The male of *sinister* has the flagellum marked with white centrally; the female has a scopulate tubercle beneath the hind coxa, and the flagellum not "rolled" apically in dead specimens.

Coelichneumon nothus (Holmgren, 1880)

This is included by Morley (Brit. Ichs. 1:29) as a variety of comitator (L.) (recte auspex (Mueller)), but he does not state that he knew of any British specimens of this form.

Coelichneumon periscelis (Wesmael, 1844)

This species was first recorded by Marshall as being the female of the species which Gravenhorst had associated with the male of his *Ichneumon pallifrons*. Stephens gives a description of both sexes of *pallifrons* and it appears that Marshall included the species on this evidence. Specimens that I have seen determined as this species are incorrectly named. That recorded by Morley (*Brit. Ichs.* 1:27) from the Bignell collection is a male of *Stenichneumon militarius* (Thunberg); it is in fact the specimen that Bignell recorded as *Ichneumon pistorius* Gravenhorst (= *militarius*) from Bickleigh 20.viii.1881.

In addition to the characters given by Wesmael and Thomson for this species, it differs from *desinatorius* (Thunberg, 1822) (syn. *subguttatus* (Gravenhorst, 1829)) in having the gena more weakly and more sparsely punctate and the malar space shorter.

Coelichneumon funebris (Holmgren, 1864)

Q = biannulatus Gravenhorst, 1820, sec Thomson.

 $\delta = derasus$ Wesmael, 1844, sec Thomson = nigerrimus Stephens (1835).

There has been much confusion in the association of funebris (Holmgren) male with its correct female. The specimens that I have seen so named from this country are mostly the males of Coelichneumon nigerrimus (Stephens) (e.g., the specimens in the Cambridge Museum cf. Kerrich, 1935, Trans. Soc. Brit. Ent., 2:38). The single specimen in the Carr collection (1921; teste Schmiedeknecht) is a male of Coelichneumon purpurissatus Perkins (see p. 138). I accept Thomson's interpretation of biannulatus, and this species is unknown to me from the British Isles. Thomson states that the male of derasus (Wesmael) stood in several examples under I. funebris in Holmgren's collection (Thomson, 1893, Opusc. ent. 18:1907); on the same page he gives notes on the true male of biannulatus.

Coelichneumon moestus (Gravenhorst, 1829)

This species was first recorded by Marshall. I have seen no specimens from Britain, and no specimen of it is present either in the Marshall or Fitch collection (the latter collection contains a number of specimens from Marshall).

Coelichneumon puerulus (Kriechbaumer, 1890)

This species was first recorded on a misidentified male of Barichneumon gemellus (Gravenhorst) (see Kerrich, 1935, Trans. Soc. Brit. Ent. 2:38). C. puerulus is a species completely unknown to me.

Cratichneumon externus (Berthoumieu, 1895)

The specimen determined as this in the Hancock collection is a female of Barichneumon deceptor (Scopoli). C. externus is a species completely unknown to me.

Cratichneumon fallax Habermehl, 1923

This is a synonym of Cratichneumon varipes (Gravenhorst, 1829).

Cratichneumon dissimilis auctt. angl.

= Cratichneumon jocularis (Wesmael, 1848).

The male of *Aoplus ochropis* (Gmelin) has been much confused with this species. In the Johnson collection the specimens from Newcastle, Co. Down were *jocularis*, those from Coolmore, Co. Donegal were *ochropis*.

In the Morley collection are 73 Cratichneumon nigritarius (Gravenhorst), 23 Cratichneumon försteri (Wesmael), 23 Aoplus ochropis and 19, The Mound, 8. viii. 1900 (Yerbury) of Cratichneumon jocularis. In the Carr collection was a 3 Aoplus ochropis, Chobham, 19.ix. 1891 (Beaumont) and 43 Cratichneumon nigritarius (2 teste Roman, 1 var. teste Habermehl and 1 var. teste Pfankuch), all from Lichfield.

There has been much confusion, systematically, between dissimilis, which I have not seen from Britain, and jocularis. I have followed Wesmael as being the first reviser of Ichneumon dissimilis Gravenhorst; he selected the female, of which he saw the Gravenhorst specimen, as being the type. The male which Gravenhorst associated with dissimilis female is Cratichneumon jocularis (Wesmael). The two species can be distinguished as follows:

- A. Q. Mesoscutum polished, with at most only a weak indication of microsculpture between the punctures on the disc, the lateral lobes with sparse, shallow, irregularly spaced punctures; hind coxa, beneath, largely smooth in the apical two-thirds with only a few coarse, scattered punctures; hind femur and hind tibia with a conspicuous, black, apical mark; thyridiae a a little narrower.
- 3. Face, cheeks (at least on the orbits) and the outer orbits below, yellow; front coxa and trochanter broadly marked with yellow, middle coxa and trochanter usually with yellow marks; lateral lobes of the mesoscutum more finely and shallowly punctate than the middle lobe in

front of the disc; hind femur broadly black apically, hind tibia black in apical half; tarsi black; antenna with no white band dissimilis (Gravenhorst, 1829).

(syn. Ichneumon citrinops Wesmael, 1857 &; citrinops Wesmael Kriechbaumer, 1893 Q&; zephyrus Wesmael, 1857 (sec Wesmael); dissimilis Gravenhorst Wesmael, 1859 Q).

- B. Q. Mesoscutum dull, the punctures of the lateral lobes similar to those of the central lobe before the disc, at least for the greater part coriaceous between the punctures; hind coxa with the punctures only a little more widely spaced in the apical half than basally; hind femur and tibia entirely red; thyridiae a little broader.

(syn. Ichneumon dissimilis Gravenhorst & nec Q, 1829; punctifrons Holmgren & 1864; dissimilis Gravenhorst Taschenberg, 1866; dissimilis Gravenhorst Holmgren &Q, 1880; dissimilis Gravenhorst Kriechbaumer, 1893.)

Eupalamus oscillator Wesmael, 1844

This was first recorded from Bignell's collection; his 2 females are *Ichneumon didymus* Gravenhorst, without locality. Other British specimens that I have seen determined as *oscillator* have all been *E. wesmaeli* Thomson. *E. oscillator* differs from *wesmaeli* not only in colour, but in the female, in the proportions of the segments of the middle tarsus (Figs. I and 2).

Melanichneumon erythraeus (Gravenhorst, 1820)

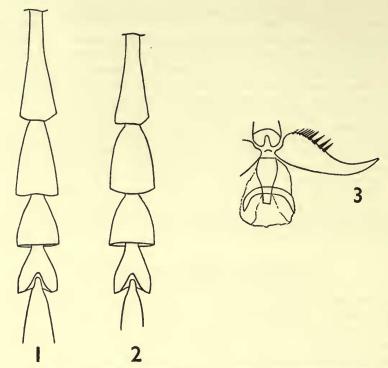
Specimens from Stephens, Morley, Carr and Cambridge Museum collections are all females of *Barichneumon ridibundus* (Gravenhorst). Bignell had 12 *Aoplus ochropis* (Gmelin), Plym Bridge, 26.v.1886, and 12 *Aoplus ruficeps* (Gravenhorst), Hartlepool (*J. Gardner*), standing under this name. The specimen in the Johnson collection is *Barichneumon sanguinator* (Rossi) (*fide* Stelfox).

The male is immediately distinct from all British species of this group in having the thorax in greater part red. The female, however, might be confused with sanguinator, but has the thyridiae broader and the front and middle coxae conspicuously marked with ivory; in sanguinator the coxae are sometimes marked with red or in very small part dirty yellow. It is at once distinguished from ridibundus in lacking the tubercle in the pronotal furrow and in having the post-petiole longitudinally striate centrally.

It should be noted that the species recorded under *Melanichneumon* from the British Isles should all be placed in *Barichneumon* according to Heinrich.

Melanichneumon albipictus var. obsoletus (Berthoumieu, 1895)

The specimen recorded by Johnson (1931, Ent. mon. Mag. 67:53) is Barichneumon gemellus (Gravenhorst). M. albipictus is probably better placed in Stenich-



Figs. 1-3. Mid tarsal segments 1 to 4: fig. 1, Eupalamus oscillator, Q; fig. 2, E. wesmaeli, Q. Hind claw, fig. 3, Patroclus sputator, Q.

neumon, as at present understood, though the thyridiae are less broad than in other species of that genus.

Barichneumon sexalbatus (Gravenhorst, 1820)

This was recorded by Morley. His specimen from Lyndhurst, Hants, 12.viii.1901 is a male of *Barichneumon coxiglyptus* Heinrich.

Wesmael examined the female type of this species from Piedmont. He states (1859) that he was unable to find any structural difference between this species and bilunulatus Gravenhorst, and in fact, that they differed only in the colour of the femora. Wesmael in 1848 (Bull. Acad. Belg. Cl. Sci. 15.i: 182) placed his derivator as bilunulatus var. 6, but for the present I regard bilunulatus as being distinct from praeceptor (Thunberg) (syn. derivator Wesmael) (cf. Thomson, 1893, Opusc. ent. 18: 1963). In the female, bilunulatus has conspicuous spines on the hind tibia which are almost lacking in praeceptor. I have not seen the former species from Britain.

Barichneumon bilunulatus auctt. angl.

= Barichneumon praeceptor (Thunberg, 1822). For notes on this species, see above, under sexalbatus.

Barichneumon incubitor auctt. angl.

= Barichneumon coxiglyptus Heinrich, 1951.

Roman (1932, Ent. Tidskr. 53:7) pointed out that Ichneumon incubitor L. was a Gambrus, and the same species as G. ornatus (Gravenhorst). Barichneumon incubitor auctt. angl. is Barichneumon coxiglyptus Heinrich, though Barichneumon citator (Thunberg) also occurs in this country. For the differences between these two species see Heinrich (1951, Bonn. zool. Beitr. 3-4:271).

Barichneumon carri Habermehl, 1923

= Barichneumon gemellus (Gravenhorst, 1829).

Barichneumon eupitheciae (Brischke, 1879)

The recorded specimen bred from *Eupithecia helveticaria* by Evans is not present in the Morley collection. From the notes which Morley gives, this specimen was most probably a male of *Cyclolabus pactor* (Wesmael). It is probable that *Ichneumon pulchellatus* Bridgman is a synonym of *I. eupitheciae* Brischke, but the type of the latter requires examination.

Barichneumon angustatus (Wesmael, 1848)

The specimens that I have seen determined as this species have all been males and, for the most part, rather strongly marked specimens of *Barichneumon deceptor* (Scopoli). It seems, originally, to have been introduced to the British list on the strength of the Stephens description of the male of *Ichneumon militaris* Gravenhorst. The male recorded as *angustatus* by Morley is no longer present in his collection. A male in the Johnson collection is *Barichneumon chionomus* (Wesmael). In the Carr collection 2 males *teste* Schmiedeknecht are *Barichneumon deceptor* and I male *teste* Habermehl, is *Barichneumon coxiglyptus* Heinrich.

No female has ever been recorded from Britain. This sex is abundantly distinct, with its abdomen strongly narrowed apically and with conspicuous, ivory, apical spots on tergites 4–7, but the male is very similar to *deceptor*; it differs from that species in having the post-petiole black, rarely reddish at the apex; the sub-alar callus more rounded and by no means carinate except at the extreme posterior end and usually completely, or almost completely, ivory; the head a little less narrowed behind the eyes; mesoscutum a little more shining, with the punctures a little coarser and the interspaces a little wider; tergites 5–7 with apical, ivory bands or spots.

Ichneumon haesitator Wesmael, 1844

This was originally recorded by Marshall. Stephens quoted the description of both sexes of *Ichneumon latrator* from Gravenhorst. The female of *latrator* Fabricius Gravenhorst is *I. haesitator*, and hence Marshall recorded this species erroneously.

I. haesitator belongs to the latrator group and has no ivory spots on the scutellum or on the apical tergites, the vertex with a yellow spot on the orbits, the stigma

fuscous, the thyridia conspicuously broader than the distance between the thyridiae, the hind femur black, and the mesoscutum with distinct microsculpture between the punctures and thus dull.

Ichneumon eremitatorius Zetterstedt, 1838

According to Roman, *stigmatorius* Zetterstedt, 1838, which is given by Kloet and Hincks as a synonym of *eremitatorius*, is a synonym of *vulneratorius* Zetterstedt, 1838; and *eremitatorius* is the male of *alpestris* Holmgren, 1864. This latter species I have not seen from Britain.

Ichneumon amphibolus Kriechbaumer, 1888

This determination was by A. Roman (Johnson, 1920, *Irish Nat.* 29:19–20). No specimen under this name is present in the Johnson collection. It is a species that is completely unknown to me.

Ichneumon quadrialbatus Gravenhorst, 1820

Barichneumon perscrutator (Wesmael) males were determined as this species by Stephens and Desvignes. The male stated to have been bred by Col. Partridge from Geometra smaragdaria, in the Morley collection and recorded by him, is an Exephanes occupator (Gravenhorst); there appears to have been some error in labelling this specimen.

I. quadrialbatus is related to gracilicornis Gravenhorst, but in the female has at most a very small, ivory spot on tergite 5, the femora completely red, the tibiae red with the hind tibia infuscate apically, the scutellum strongly convex, tergites 2 and 3 castaneous, most usually marked with black. The male also has the femora completely red, and in the only specimen that I have examined the tergites are completely black. There is a female of this species sent by Gravenhorst to the Linnean Society and now in the British Museum collection.

Ichneumon quaesitorius L., 1761

This species was first introduced by Stephens in his Catalogue where he gave it as ? quaesitorius. A specimen so labelled from the Stephens collection is a female of I. gracilentus Wesmael with tergites 2 and 3 infuscate; his description in the 'Illustrations' is taken from Gravenhorst. Marshall wrongly synonymized Chasmias paludator (Desvignes) with Ichneumon quaesitorius and it was the former species to which he was referring.

I. quaesitorius resembles primatorius Forster in structure, but the propodeum is less strongly excised before the dentiparal spines and the post-petiole is coarsely, longitudinally striate; in colour it is of course completely distinct.

Ichneumon piceatorius Gravenhorst, 1820

This was recorded by Marshall, apparently from the specimen determined as this by Desvignes. It is a male of *Coelichneumon haemorrhoidalis* (Gravenhorst). The identity of *piceatorius* Gravenhorst is still in doubt.

Ichneumon haglundi Holmgren, 1864

Specimens so named from the British Isles are *Ichneumon formosus* Gravenhorst, 1829. I am indebted to Mr. G. J. Kerrich for information concerning the type of *haglundi*.

Ichneumon submarginatus Gravenhorst, 1829

This species was recorded by Stephens but is not included in Desvignes' catalogue. Bignell had placed under this name 12, no data, *Eupalamus wesmaeli* Thomson and

1 Q, Bickleigh, 28. vi. 1881, Stenichneumon militarius (Thunberg).

This species is related to *nereni* Thomson. In the female the thyridia is distinctly narrower than the distance between the thyridiae, the mesoscutum is closely punctate with microsculpture in the interspaces on the disc, the scutellum is strongly convex and yellow, tergite 2 black or piceous, 3 black, both narrowly red on the apical margin; tergites 6 and 7 have a yellow, apical spot. I do not know the male of this species.

Ichneumon languidus Wesmael, 1844

Both Marshall and Bridgman determined specimens of *Ichneumon tuberculipes* Wesmael as this species. In the Carr collection the male *teste* Schmiedeknecht is also a specimen of *tuberculipes*, but the one *teste* Habermehl is a male of *Coelichneumon leucocerus* (Gravenhorst).

I. languidus is one of the species with the female having elongate basal flagellar segments, the flagellum strongly attenuate apically, the malar space long, but the area supero-media elongate; it has no scopulate tubercle on the hind coxa.

Ichneumon rufidens Wesmael, 1844

This in actual fact is a most interesting species with a unidentate mandible and a very large clypeus. Marshall appears to have based his record on a single specimen, so named by Desvignes, which is a female of *Ichneumon minutorius* Desvignes (syn. captorius Thomson).

Ichneumon silaceus Gravenhorst, 1829

This was recorded by Stephens but is not in Desvignes' catalogue.

Ichneumon subcylindricus Gravenhorst, 1829

This also was recorded by Stephens but is not in Desvignes' catalogue. I do not know this species, the type of which was re-described by Wesmael (1859).

Ichneumon tempestivus Holmgren, 1864

= Ichneumon albiger Wesmael, 1844.

As pointed out by Thomson, tempestivus is only the form of albiger which has the hind tibia more or less marked with yellow; this form is common in Britain.

Ichneumon militaris Gravenhorst, 1820

This was recorded by Stephens but is not in Desvignes' catalogue. Specimens so determined by Bridgman belong to the form of *I. extensorius* L. with the hind tibia completely infuscate.

Ichneumon caedator Gravenhorst, 1829

This was recorded by Stephens but is not in Desvignes' catalogue. The single male (Lichfield, 1921; teste Schmiedeknecht) and female (Lichfield, 1922; teste Roman) are correctly determined but the record requires confirmation.

Ichneumon gratus Wesmael, 1855

This was recorded by Johnson (1929, Ent. mon. Mag. 65: 135). This specimen is a female of Chasmias motatorius (F.).

Ichneumon ??thomsoni Holmgren, 1864

The specimen from Scotland so determined by Roman is a female of *Ichneumou rufidorsatus* Bridgman. For notes on *thomsoni* see Heinrich (1951, *Bonn. zool. Beitr.* 3-4:259).

Ichneumon inquinatus Wesmael, 1844

syn. Ichneumon brevigena Thomson, 1886.

Marshall wrongly synonymised I. crassorius Desvignes 1856, (= didymus Gravenhorst, 1829) with this species. Specimens named inquinatus by Morley that I have examined are females of I. didymus. The single female in the Carr collection is correctly determined (Lichfield, 1923; teste Habermehl); it is pinned on a Carlsbad pin, other specimens of this date are all on continental steel pins. The record requires confirmation.

Ichneumon multipictus Gravenhorst, 1820

Marshall apparently recorded this species from a specimen determined by Desvignes. It is a female of *Ichneumon exilicornis* Wesmael. The specimens named multipictus in the Bignell collection are 2 females of *Ichneumon validicornis* Holmgren, no data, and Cann Wood, 6.iii.1887 (*J. Keys*). The specimen so named in the Carr collection (Lichfield, 1919; teste Roman) is a female of Barichneumon lepidus (Gravenhorst).

Ctenichneumon melanocastaneus auctt. angl.

= Ctenichneumon rubroater (Ratzeburg, 1852).

C. rubroater differs from melanocastaneus (Gravenhorst) in having the 7th segment of the flagellum quadrate, not elongate and the head with the temples broader and only very weakly converging behind the eyes. C. melanocastaneus is probably only a form of C. repentinus (Gravenhorst) with a black scutellum (Heinrich, 1929).

Ctenichneumon repentinus auctt. angl.

= Ctenichneumon devylderi (Holmgren, 1871).

C. devylderi differs from repentinus (Gravenhorst, 1820) in having the spiracles of the 1st tergite much smaller, the length: breadth being at most 1.5:1.

Ctenichneumon sputator (F., 1793)

= Patroclus sputator (F., 1793). (comb. nov.)

This was recorded by Stephens but is not in Desvignes' catalogue. The specimens named sputator in the Johnson collection are males of Stenichneumon culpator (Schrank). The dark male (Lichfield, 1923; teste Schmiedeknecht) in the Carr collection is Cratichneumon fabricator maculifrons (Stephens) and the pair of specimens with red-banded abdomen (Lichfield, 1923; teste Habermehl) are correct, but I question the provenance of these two specimens.

This species I consider to belong to *Patroclus*, which was originally described from Central America. This genus has the claws with upstanding pectinations, at least basally (Fig. 3); also the 1st tergite of the gaster is strongly raised dorsally at

about the line of the spiracles.

Ctenichneumon flavocinctus (Desvignes, 1856)

= Ctenichneumon panzeri (Wesmael, 1844).

Amblyteles uniguttatus (Gravenhorst, 1829)

The female of *Ctenichneumon panzeri* (Wesmael) has been misidentified as this on numerous occasions. In the Carr collection are present $I \supseteq Probolus culpatorius$ (L.), $I \supseteq (teste \ Pfankuch)$ *Ctenichneumon messorius* (Gravenhorst) and $2 \nearrow (one \ conspicuously red marked, the other without red markings) (teste Schmiedeknecht) which are correctly determined; under messorius, Carr has another male of uniguttatus (concerning which, see p. 117). The species still requires confirmation as British.$

Amblyteles conspurcatus (Gravenhorst, 1829)

This was recorded by Stephens but is not in Desvignes' catalogue. A specimen from the Stephens collection labelled as this is a male of *Ichneumon validicornis* Holmgren.

Amblyteles viridatorius (Gravenhorst, 1820)

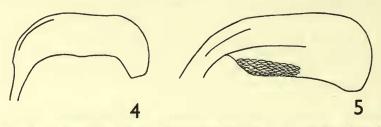
= Amblyteles fossorius (L., 1758).

syn. Amblyteles atratorius (F., 1793).

This was recorded by Stephens but is not in Desvignes' catalogue. A Stephens specimen so labelled is a female of *Amblyteles glaucatorius* (F.). The single pair (teste Schmiedeknecht) recorded by Carr as atratorius (F.) are a pair of *Amblyteles* (vadatorius Illiger 1807) = pictus (Schrank, 1776) obviously recorded under atratorius

due to an error of transcription. Otherwise Amblyteles quadripunctorius (Mueller) has been mistaken for this species.

A. fossorius can be distinguished from quadripunctorius in the female in that it lacks long spines on the extensor surface of the hind tibia, in having the temples less narrowed behind the eyes and the lower tooth of the mandible minute, as well as in colour; and in the male in having the ventral plica of the abdomen infuscate, the lower tooth of the mandible minute, the hind femur entirely red, and in the penis valves having no inflated subapical area beneath (Figs. 4 and 5).



Figs. 4, 5. Lateral view of apex of penis valve: fig. 4, Amblyteles fossorius; fig. 5, A. quadripunctorius.

Amblyteles cerinthius (Gravenhorst, 1820)

The specimens so named by Marshall are a pair of Amblyteles longigena Thomson. Specimens so named in the Morley collection are also longigena. The British specimens do not agree with Gravenhorst's description of cerinthius. The species was first introduced to the British list by Stephens, but was deleted by Desvignes; I have found no specimen so labelled among the Stephens material.

Amblyteles microcephalus (Stephens, 1835)

= Ichneumon formosus Gravenhorst, 1829.

Amblyteles duplicator Roman, 1923

= Hybophorellus injucundus (Wesmael, 1854). (comb. nov.) syn. Amblyteles injucundus Wesmael, 1854.

The records of these are based on a single male (Lichfield, 1923) (*injucundus*) and a single female (Lichfield, 1922) (*duplicator* type) in the Carr collection. (See under *Hybophorellus aulicus*, above.)

Amblyteles fossorius (L., 1758)

The type of this species has been wrongly determined. It is a male of the species previously known as *Amblyteles viridatorius* (Gravenhorst). (See above.) *Amblyteles fossorius* auctt. angl. = *Amblyteles subsericans* (Gravenhorst, 1820).

Ctenamblyteles homocerus (Wesmael, 1854)

Bignell first recorded this species but his collection now contains no specimen under this name.

Ctenamblyteles is closely related to Patroclus. Specimens with dark wings are considered by Heinrich to be the typical form, which has the teeth on the shaft of the claw evenly spaced and large. I have seen a single specimen from the Swiss Alps, which appears to be homocerus var. noskiewiczi Heinrich, 1926, having almost clear wings and the hind tibia only very narrowly infuscate apically, internally; this form is distinguished from homocerus not only in the slight colour difference, but also in having the pectinations on the shaft of the claw thinner and contiguous; when more material can be examined this may well prove to be a distinct species.

Anisobas hostilis (Gravenhorst, 1820)

This was recorded by Stephens but is not in Desvignes' catalogue. Of the specmens recorded by Morley, the one taken by R. C. Bradley in the New Forest is not in Morley's collection, but the one taken by himself is a male of *Barichneumon tergenus* (Gravenhorst). Also under this name in the Morley collection is another male of *tergenus* and 2 females of *Barichneumon gemellus* (Gravenhorst).

Stenolabus daemon (Wesmael, 1844)

= Asthenolabus daemon (Wesmael, 1884).

The 2 females (Lichfield, 1921; teste Schmiedeknecht) under this name in the Carr collection are *Platylabus concinnus* Thomson. British specimens of concinnus are very largely black.

Apaeleticus inclytus Wesmael, 1853

= Apaeleticus bellicosus Wesmael, 1844. (syn. nov.)

I have examined the type material of these species in the Wesmael collection.

Eurylabus rufipes (Stephens, 1835)

= Polytribax curvus (Schrank, 1802).

Ischnopsidea truncator (F., 1798)

= Rhexidermus truncator (F., 1798).

The single female in the Carr collection (Lichfield, 1921; teste Habermehl) is correctly determined, but the species requires confirmation as British.

Heterischnus rufipes (Wesmael, 1848)

= Rhexidermus nigricollis (Wesmael, 1844). (syn. nov.)

I have examined the type material of these species in the Wesmael collection. Heterischnus rusipes auctt. = Heterischnus pulex (Mueller, 1776), following Wesmael.

Dicaelotus pusillator (Gravenhorst, 1807)

This was recorded by Marshall. Specimens so named by him are *Epitomus parvus* Thomson, 1891 (syn. *Hemiteles pygmaeus* Brischke, 1890, *nec* Brischke, 1888). The Bignell collection also had *Epitomus parvus* under this name. In the Carr collection are I female (Lichfield, 1921; *teste* Habermehl) *Dicaelotus rufoniger* Berthoumieu and I female (Lichfield, 1917; *teste* Pfankuch) *Cratichneumon varipes* (Gravenhorst). I have been unable to identify *pusillator* (Gravenhorst) female, which Wesmael placed tentatively in *Dicaelotus* after he had seen the type; the males described by Gravenhorst for this species are mixed; the specimen sent to Wesmael was *Herpestomus arridens* (Gravenhorst).

Dicaelotus rufilimbatus (Gravenhorst, 1820)

I have been unable to satisfy myself as to the identity of this species. Wesmael examined the male type from the Gravenhorst collection, but was uncertain of its identity, though expressing the opinion that it might be the male of *D. erythrostoma* Wesmael. It was recorded by Stephens, but it is not in Desvignes' catalogue.

Colpognathus jucundus Wesmael Thomson, 1891 nec Wesmael, 1844.

This was first recorded as *Phaeogenes jucundus* by Marshall. I have seen a specimen so named from his collection and it is *Phaeogenes ischiomelinus* (Gravenhorst). The specimen recorded by Morley from the Piffard collection is a female of *Colpognathus divisus* Thomson. The Bradley specimen quoted by Morley is completely doubtful and has not been traced. The Bignell specimen, Bickleigh, 8.ix.1882, is a female of *Diadromus varicolor* Wesmael.

Ph: jucundus Wesmael, is a true Phaeogenes related to modestus Wesmael; montanus Thomson, is probably a synonym of it.

Centeterus major Wesmael, 1844

The single specimen collected by E. A. Butler, now in the Morley collection, is a male of *Colpognathus divisus* Thomson.

Herpestomus furunculus Wesmael, 1844

= Herpestomus nasutus Wesmael, 1844. (syn. nov.) syn. Herpestomus intermedius Wesmael, 1844. (syn. nov.)

I have seen the type material of these species; *Herpestomus intermedius* Wesmael I consider also to be a synonym of *nasutus*.

Diadromus guttulatus (Gravenhorst, 1829)

= Diadromus candidatus (Gravenhorst, 1829). (syn. nov.)

Diadromus conciliator (Wesmael, 1859)

This was recorded by Marshall, who included it as being the male which Graven-horst associated with *Ichneumon opprimator* female and which Wesmael later

described as *conciliator*. Stephens quoted a description of both male and female of *opprimator*, and it appears that Marshall included the species on this evidence.

Diadromus prosopius Holmgren, 1889

The specimen in the Carr collection (teste Habermehl) is a male of Phaeogenes rusticatus Wesmael.

Notosemus albibuccus (Kriechbaumer, 1890)

= Notosemus bohemani (Wesmael, 1855).

Aethecerus pallicoxa Thomson, 1891

In the Johnson collection the specimen det. Roman as ? pallicoxa is a male of Oiorhinus pallipalpis Wesmael. In the Carr collection are also a pair labelled as pallicoxa (teste Roman), which are likewise pallipalpis.

Mevesia similis (Bridgman, 1881)

= Thyraeella collaris (Gravenhorst, 1829).

Baeosemus mitigosus (Gravenhorst, 1829)

syn. Herpestomus phaeocerus Wesmael, 1844.

This was recorded by Stephens but is not in Desvignes' catalogue. A specimen so named from the Stephens collection is a female of *Phaeogenes fuscicornis* Wesmael. Gravenhorst recorded *Ph. mitigosus* var. 1 3 from Netley, but this, from the description, cannot be conspecific with *mitigosus* and is probably a male *Phaeogenes*.

Phaeogenes nigridens Wesmael, 1844

The Johnson specimen is a male of *Ph. ophthalmicus* Wesmael from Newcastle, Co. Down. In the Carr collection is a specimen labelled "*Ph. ? nigrinus* Berth. teste Schmiedeknecht? nigridens" which is a female of Aethecerus discolor Wesmael.

There has been considerable confusion concerning this species. It is related to planifrons, heterogonus and curator, but differs in the female in having the fore wing with the basal plates infuscate, not yellow; the hind coxa with a transverse carina beneath which extends to the inner, ventro-lateral margin where it is only slightly raised, and behind this carina the coxa is a little depressed; the head is more quadrate.

Phaeogenes limatus Wesmael, 1844

= Phaeogenes fulvitarsis Wesmael, 1844.

The specimen in the Carr collection (Lichfield, 1923; teste Schmeideknecht) is a female of *Phaeogenes flavidens* Wesmael. *Ph. limatus* Wesmael Thomson is quite another species which I regard as being conspecific with *Phaeogenes infimus* Wesmael.

Phaeogenes homochlorus Wesmael, 1844

= Phaeogenes invisor (Thunberg, 1822). (syn. nov.)

Phaeogenes lascivus Wesmael, 1855

The specimen in the Carr collection (Lichfield, 1921; teste Schmiedeknecht) is a female of *Phaeogenes fuscicornis* Wesmael.

Phaeogenes minimus Berthoumieu, 1901

The specimen in the Carr collection (Lichfield, 1922; teste Habermehl) is a female of Herpestomus nasutus Wesmael.

Phaeogenes nitidus Bridgman, 1886.

= Cratichneumon magus (Wesmael, 1855).

Phaeogenes coryphaeus Wesmael, 1844

This species was first recorded by Bridgman on a specimen that he examined from Champion's collection. There is no specimen of this species in the Bridgman collection nor amongst the Champion material which came to the British Museum. Specimens so named in Johnson's collection are *Ph. fulvitarsis* Wesmael *nec* auctt. (syn. ruficoxa Thomson).

The form of the head in *coryphaeus* is quite distinct from the other species of the *fulvitarsis* group, being comparable in shape with *planifrons*, and having the occipital carina about as near to the posterior occllus as the distance between the posterior

ocelli.

Phaeogenes ruficoxa Thomson, 1891

= Phaeogenes fulvitarsis Wesmael, 1844, nec auctt. (syn. nov.)

The species which has previously been determined as *fulvitarsis* by British authors is *Phaeogenes rusticatus* Wesmael. The species previously determined as *rusticatus* I am describing as a new species.

Phaeogenes minutus Wesmael, 1844

The two specimens in the Carr collection are labelled "Lichfield, 1921; teste Schmiedeknecht," which is a male of Oiorhinus pallipalpis Wesmael, and "Lichfield, 1923; teste Schmiedeknecht," which is a female of Phaeogenes ischiomelinus (Gravenhorst).

The type of this species is in bad condition, but I believe it to be a small female of

infimus Wesmael.

Phaeogenes ?? acutus (Gravenhorst, 1829)

This species was recorded by Marshall. Specimens so named from his collection are 2 females of Aethecerus discolor Wesmael.

Phaeogenes socius Holmgren, 1889

= Phaeogenes osculator (Thunberg, 1822), & (sec Roman).

The male and female, Lichfield, 1921, in the Carr collection, teste Schmiedeknecht, are a pair of osculator.

Melanomicrus elliotti Morley, 1903.

= Eriplatys ardeicollis (Wesmael, 1844).

VII. SPECIES RECORDED IN THE ADDENDA OF MORLEY'S $BRITISH\ ICHNEUMONS$

In the Addenda to Morley's *British Ichneumons*, 1:292–293, the following species are listed. I have examined the specimens and include my identifications.

Phaeogenes socius Holmgren, 1889, \mathfrak{P} ; the Foxall specimen is Aethecerus nitidus Wesmael, the Piffard specimen is Aethecerus discolor Wesmael.

Phaeogenes macilentus Wesmael, 1844, det. Morley is Oiorhinus pallipalpis Wesmael.

Diadromus tenax Wesmael, 1844, det. Morley is Ischnus nigricollis Wesmael.

Misetus oculatus Wesmael, 1844, is correct.

Phaeogenes murcifer Holmgren, 1889. I am unable to find this specimen in the Morley collection.

Colpognathus armatus Thomson, 1891, det. Morley is Colpognathus divisus Thomson.

VIII. CHANGES IN THE TRIVIAL NAMES OF BRITISH ICHNEUMONINAE

The following changes in specific names due to homonymy and synonymy have to be made:

Trogus pictus (Kriechbaumer, 1882).

= Psilomastax pyramidalis Tischbein, 1868.

Cercodinotomus Uchida, 1940, type species Psilomastax pictus Kriechbaumer, 1882, is a direct synonym of Psilomastax Tischbien, 1868, type species Psilomastax pyramidalis Tischbein, 1868, the two type species being conspecific. (syn. nov.)

Protichneumon erythrogaster (Stephens, 1835) nec (Gmelin, 1790).

= Protichneumon coqueberti (Wesmael, 1848).

Amblyjoppa laminatoria (Fabricius, 1798).

= Amblyjoppa proteus (Christ, 1791).

Coelichneumon subguttatus (Gravenhorst, 1829).

= Coelichneumon desinatorius (Thunberg, 1822).

Coelichneumon derasus (Wesmael, 1844).

= Coelichneumon nigerrimus (Stephens, 1835).

Stenichneumon trilineatus (Gmelin, 1790).

= Stenichneumon lineator (Fabricius, 1781).

Platylabus semirufus (Desvignes, 1856).

= Platylabops apricus (Gravenhorst, 1820).

Cratichneumon gravenhorstii (Boyer de Fonscolombe, 1847) nec (Wesmael, 1836) nec (Guérin Ménéville, 1838).

= Cratichneumon albifrons (Stephens, 1835).

Cratichneumon liostylus (Thomson, 1887).

= Cratichneumon infidus (Wesmael, 1848).

Melanichneumon nudicoxa (Thomson, 1888).

= Barichneumon digrammus (Gravenhorst, 1820).

ENTOM. III, 4.

I have examined a male of digrammus sent by Gravenhorst to the Linnean Society and now in the British Museum.

Melanichneumon perscrutator (Wesmael, 1844) nec (Thunberg, 1822).

= Barichneumon maculicauda nom. nov.

Melanichneumon albolineatus (Gravenhorst, 1829).

= Barichneumon albilineatus (Gravenhorst, 1820).

Barichneumon deceptor (Gravenhorst, 1820).

= Barichneumon deceptor (Scopoli, 1763).

Ichneumon obsessor Wesmael, 1844.

= Ichneumon formosus Gravenhorst, 1829.

I accept this synonymy, given by Wesmael (1859), after he had examined the Gravenhorst type.

Ichneumon confusorius Gravenhorst, 1829.

= Ichneumon confusor Gravenhorst, 1820.

Chasmias paludicola (Wesmael, 1857).

= Chasmias paludator (Desvignes, 1854).

Exephanes hilaris (Gravenhorst, 1829) nec (Say, January 1829).

= Exephanes ischioxanthus (Gravenhorst, 1829).

Amblyteles vadatorius (Illiger, 1807).

= Amblyteles pictus (Schrank, 1776).

Amblyteles negatorius (Fabricius, 1793).

= Amblyteles pulchellus (Christ, 1791.) (syn. nov.)

Diadromus rubellus (Gravenhorst, 1829, 3) nec (Gmelin, 1790).

= Diadromus quadriguttatus (Gravenhorst, 1829).

Epitomus pygmaeus (Brischke, 1890, nec 1888).

= Epitomus parvus Thomson, 1891.

Phaeogenes melanogonus (Gravenhorst, 1820) emend.

= Phaeogenes melanogonos (Gmelin, 1790).

Phaeogenes scutellaris Wesmael, 1844.

= Phaeogenes maculicornis (Stephens, 1835).

Phaeogenes tibiator (Thunberg, 1822) nec (Gravenhorst, 1820).

= Phaeogenes callopus Wesmael, 1844.

IX. CHANGES IN GENERIC PLACEMENT OF SPECIES OF BRITISH ICHNEUMONINAE

Protichneumon fuscipennis (Wesmael, 1844) to Amblyjoppa Cameron, 1902. Stenichneumon ochropis (Gmelin, 1790), castaneus (Gravenhorst, 1820), and ratzeburgii (Hartig, 1838) to Aoplus Tischbein, 1874.

Cratichneumon ruficeps (Gravenhorst, 1829) and rubricosus (Holmgren, 1864) to

Aoplus Tischbein, 1874.

The authenticated British species included under *Melanichneumon* Thomson, 1893, to *Barichneumon* Thomson, 1893.

Barichneumon magus (Wesmael, 1855) to Cratichneumon Thomson, 1893.

Barichneumon pulchellatus (Bridgman, 1889) to Platylabops Heinrich, 1950. Barichneumon semirufus (Gravenhorst, 1820) to Cratichneumon semirufus (Gravenhorst, 1820). (comb. nov.)

Barichneumon rufidorsatus (Bridgman, 1887) to Ichneumon L., 1758.

Barichneumon humilis (Wesmael, 1857) to Aoplus Tischbein, 1874.

Chasmias lugens (Gravenhorst, 1829) to Ichneumon L., 1758.

Ctenichneumon haereticus (Wesmael, 1854) to Ichneumon L., 1758.

Spilichneumon fabricii (Schrank, 1802) to Amblyteles Wesmael, 1844.

Platylabus rubellus (Gmelin, 1790) and exhortator (F., 1787) to Ectopius Wesmael,

Platylabus infractorius (L., 1761) to Pristiceros Gravenhorst, 1829.

Stenolabus Heinrich, 1936, nec Schulthess-Rechberg, 1910 = Asthenolabus Heinrich, 1951.

Eurylabus dirus Wesmael, 1853, to Zimmeria Heinrich, 1933.

Ischnopsidea Viereck, 1914 = Rhexidermus Foerster, 1868.

Herpestomus distinctus Bridgman, 1887, to Phaeogenes Wesmael, 1844.

Proscus cephalotes (Wesmael, 1844) and suspicax (Wesmael, 1844) to Phaeogenes Wesmael, 1844.

X. ADDITIONS TO THE LIST OF BRITISH ICHNEUMONINAE

The list that follows contains those species which have been described previously and of which I have now seen material from Britain. In a few cases these additions are due only to the fact that the majority of the specimens previously determined under certain names were incorrectly identified, and thus a species will have to be deleted at the same time (e.g., *Ichneumon languidus* auctt. angl. for the most part is *Ichneumon tuberculipes* Wesmael and no specimens of *languidus* have been seen from Britain).

Certain species, too, which were formerly given as synonyms, are reintroduced as distinct species, as further material and information concerning them has now been assembled. But allowing for this, some 48 species are added as completely new additions to the list given by Kloet and Hincks, and in all, 65 names are added. These numbers do not include the species described as new later in this paper, nor changes of name due to direct synonymy. I have seen the types or syntypes of species marked with an asterisk.

LISTRODROMINI

Anisobas platystylus Thomson, 1888

England: Staffs; Maer Woods, 19, 18.vi.1947 (H. W. Daltry) det. G. J. Kerrich. (H. W. Daltry Coll.)

PROTICHNEUMONINI

Coelichneumon falsificus (Wesmael, 1844)*

England: Essex; Colchester, 19, 1910 (P. Harwood); Devon; Newton Abbot, 19, 27. vi. 1935 (R. C. L. Perkins). (B.M. Coll.)

Coelichneumon solutus (Homgren, 1864)

SCOTLAND: Inverness; Cairn Gorm, 3000 ft., 13, 27.vi.1934 (R. B. and J. E. Benson), det. A. Roman. (B.M.Coll.)

Coelichneumon purpurissatus nom. nov.

syn. Ichneumon nigrator Fabricius, 1793, nec Mueller, 1776.
Ichneumon lineator varr. 1-5 Wesmael, 1844.
Coelichneumon lineator auctt. ex parte.

I am using this name for the species which is very closely related to comitator L., but in which the hair on the propodeum is fuscous and not pale, and the abdomen more clearly metallic. Trentepol in his redescription of nigrator described the hind femur as being red, with a fuscous line outwardly, the front and middle femora being black. This would apply better to the present species than to comitator. Coelichneumon subviolaceiventris (Pic) (comb. nov.) (=Ichneumon subviolaceiventris Pic, 1908, Échange, 24:67) is very similar to purpurissatus but can at once be distinguished by the lack of the scopa on the hind coxa.

Various other names are given by Dalla Torre as synonyms of *Ichneumon lineator* auctt. Of these *biguttatus* Thunberg (syn. *biguttorius* Thunberg) is *Stenichneumon lineator* (F.); *narrator* F. is more probably a specimen of *Coelichneumon comitator* (L.); *fuscatorius* Thunberg is uncertain as to position, the type was not found by Roman, and it is described as having the legs red with the femora black; *I. caerulescens* Tischbein is described as having the apical angles of the 1st tergite marked with ivory, and I have seen no specimen agreeing with his description of this species, which may be distinct. I have therefore been forced to propose a new name for this form.

ENGLAND: Cornwall; Gurnards Head, 13, 1-8.viii.1936, on umbels of Smyrnium (G. D. Hale Carpenter); Polperro, 19 (T. A. Marshall); St. Minver, 19, 1.viii.1910 (Le Marchant); no locality, 19, bred 1.vii.1910 ex Dianthoecia barrettii (H. M. Edelsten) (B.M.Coll.); Devon; Prawle Point, 13, 8.v.1938 ex. Dianthoecia barrettii (A. J. L. Bowes); Cornwall; nr. Bude, 13, 23.vi.1910 (F. C. Woodforde); Hants; New Forest, Ashurst Walk, 19, 9-10.vi.1912 (F. C. Woodforde) (Hope Department, Oxford). Cornwall; Carbis Bay, 29, 29.viii.1928 and 13.ix.1931 (A. Thornley) (C. Morley Coll.).

Coelichneumon serenus (Gravenhorst, 1820)

This I regard as a distinct species. Of it I have seen only I male, Desvignes Coll., and 2 females from the old British collection in the British Museum.

Coelichneumon truncatulus (Thomson, 1886)*

I am now also regarding this species as distinct. England: Lancs; Kent; Surrey; Herts; Bucks. 133, 112, v-vi. (B.M.Coll.)

HERESIARCHINI

Heresiarches eudoxius (Wesmael, 1844)*

England: Hants; New Forest, Minstead Wood, 13, 15.vii.1934 (C. Morley); 23, 19 (Capron) (cf. Morley, British Ichs. 1:203, footnote). (C. Morley Coll.)

ICHNEUMONINI

Hoplismenus bidentatus (Gmelin, 1790)

syn. Hoplismenus bispinatorius auctt. angl.

Aoplus defraudator (Wesmael, 1844)*

SCOTLAND: Inverness and Perthshire, and IRELAND: Co. Wicklow; 33, 112, vi—ix (B.M.Coll.)

Aoplus altercator (Wesmael, 1855)

England: Bucks and Somerset. Scotland: Perthshire and Inverness. Ireland: Co. Wicklow. 26, 99, vi—viii. (B.M.Coll.)

Aoplus virginalis (Wesmael, 1844)*

England: Suffolk; Staverton Thicks, 29, 11.vii.1914 (C. Morley). (C. Morley Coll. det. as Barichneumon eupitheciae Brischke.)

Cratichneumon clarigator (Wesmael, 1844)*

England: Surrey; Hunts; Herts; Kent. 153, 29, v-vii. (B.M.Coll.)

Cratichneumon jocularis (Wesmael, 1848)

syn. Cratichneumon dissimilis auctt. angl.

IRELAND: Co. Down; Newcastle, 23 (W. F. Johnson) (Dublin Museum). England: N. Yorkshire. Scotland: Nairn and Aberdeen. Ireland: Co. Wicklow. 63. (B.M.Coll.) Scotland: "The Mound," 19, 8. viii. 1900 (Yerbury). (Morley Coll.)

Cratichneumon pseudocryptus (Wesmael, 1857)*

ENGLAND: 19. (Capron) (In C. Morley Coll. under Plectocryptus tinctorius (Gravenhorst)).

Barichneumon leucocheilus (Wesmael, 1844)*

13, labelled "734 transfuga" from British Collection. England: Surrey; Byfleet, 12, 26-29.v.1949 (R. B. Benson). (B.M.Coll.)

Barichneumon praeceptor (Thunberg, 1822)

syn. Barichneumon bilunulatus auctt. angl.

Barichneumon coxiglyptus Heinrich, 1951

syn. Barichneumon incubitor auctt. angl.

A rather common species. In the B.M. Coll. is material from Surrey; Suffolk; Devon; Cambs; Herts; Hereford; Kent. v-vi, viii-ix.

Barichneumon citator (Thunberg, 1822)

England: Devon; Dartmoor, 13, 1.vi.1935 (R. C. L. Perkins); Lydford, 12, 8–10.ix.1946 (J. F. Perkins). (B.M.Coll.)

Ichneumon exilicornis Wesmael, 1857*

There is a single Q of this species from the Desvignes collection. (B.M.Coll.)

Ichneumon tuberculipes Wesmael, 1848*

This species has most usually been recorded as *languidus* Wesmael in Britain. In the British Museum collection there is material from Devon, Hants and Essex.

Ichneumon megapodius Heinrich, 1949

A parasite of Amathes alpicola and I have examined 4 males and 3 females, all reared from pupae of this host from Perthshire (K. Todd) and Inverness (P. Harwood). British specimens are much more extensively marked with red than those from the Alps.

Ichneumon fuscatus Gravenhorst, 1829

There is a single female which may belong to the above species, and which is quite distinct from any other species known to me, from Surrey; Chobham, 9.vi.1910 (G. Le Marchant). (B.M.Coll.)

Ichneumon eurycerus Thomson, 1890

Scotland: Inverness; Nethy Bridge, 12, 30.v.1931; Perth; Rannoch, 12, v.1922; England: W. Suffolk, 12, 1928 (P. Harwood). (B.M.Coll.)

Ichneumon crassifemur Thomson, 1886*

I have only seen material of this species from the Desvignes and Stephens collections. It was previously regarded as a synonym of *molitorius* L.

Ichneumon melanotis Holmgren, 1864

This species, too, I regard as distinct from *molitorius*. In the British Museum collection there is material from Hants, Bucks and Inverness.

Ichneumon septentrionalis s. sp. atrifemur nom. nov.

syn. scelestus Perkins, 1952, nec Cresson, 1864.

For information concerning this species see Perkins, 1952, Bull. ent. Res. 48: 361.

Ichneumon lautatorius Desvignes, 1856*

This species is now regarded as being distinct from sarcitorius L.

Exephanes amabilis Kriechbaumer, 1895

IRELAND: Co. Meath, 1%, ix. 1922 (G. L. R. Hancock) det. G. Heinrich. England: Cambs; Adventurers fen, 1%, 8. vii. 1924 (G. L. R. Hancock). (B.M.Coll.) Norfolk; Wroxham, 1%, 3. ix. 1902 (G. A. K. Marshall). (Hope Department, Oxford).

Exephanes caelebs Kriechbaumer, 1890

IRELAND: Co. Cavan; Lisney, 1%, 31.v.1936; Sandpit, Arva Road, 1%, 21.v. 1934 (R. C. Farris); Co. Wicklow; Enniskerry, 1%, 25.viii.1935 (J. F. Perkins). (B.M.Coll.)

Thyrateles camelinus (Wesmael, 1844)*

England: Essex, Loughton, $1 \circ (G. C. Champion)$; $1 \circ ,$ Stephens Coll. (B.M.Coll.) Both specimens were previously determined as Ctenicheunom castigator (F.).

Ctenichneumon rubroator (Ratzeburg, 1852)

syn. Ctenichneumon melanocastaneus auctt. angl.

Not uncommon. England: Devon; Essex; Cornwall; vi—vii. (B.M.Coll.)

Ctenichneumon devylderi (Holmgren, 1871)

syn. Ctenichneumon repentinus auctt. angl.

There has been confusion between this species and *repentinus* (Gravenhorst), of which I have seen no specimens from Britain. ENGLAND: Bucks and Essex, 63, 52. (B.M.Coll.)

Spilichneumon johansoni (Holmgren, 1871)

England: Northants; Herts; Kent; Bucks; Surrey. 53, 49. (B.M.Coll.)

Spilichneumon stagnicola (Thomson, 1888)*

England: Gloucestershire; Forest of Dean, High Meadow Woods, 1° , 9.vi.1936 (E. B. Britton and J. F. Perkins); Hants; New Forest, 1° , 15.vi.1912 (G. T. Lyle); Hereford; Malvern Hills, 1° , 20–21.iv.1935 (R. B. Benson); Kent; Tunbridge Wells, 1° , viii.1920 (C. G. Nurse). (B.M.Coll.)

Amblyteles gradatorius (Thunberg, 1822)

syn. Amblyteles egregius (Gravenhorst, 1829).

SCOTLAND: Perth; 13, vi.1914, ex Eurois occulta (P. Harwood); Rannoch, 19, vi.1927 (P. Harwood). (B.M.Coll.)

Amblyteles longigena Thomson, 1888.

syn. Amblyteles cerinthius auctt. angl.

Scotland: Forfar; Perth; Isle of Arran. England: Kent; Devon. 63, 79. (B.M.Coll.)

Amblyteles elongatus Brischke, 1878

syn. Amblyteles subsericans var. elongatus Brischke sec Heinrich.

This is a common species which used to be determined as *subsericans* (Gravenhorst), and of which the male appears to be much rarer than the female. Heinrich has described the genus *Limerodops* for this species.

Amblyteles subsericans (Gravenhorst, 1820)

syn. Amblyteles fossorius auctt. angl.

This is a more robust species than *elongatus* and is rarer. I have seen material of it from England: Bucks, Herts and Glos., the male being more frequently captured than the female. A. subsericans has been given as a synonym of fossorius L., but I have re-examined the male type of that species and found it to be A. viridatorius (F.), a species unknown to me from Britain.

Acolobus sericeus Wesmael, 1844*

England: Essex and Hants, 33, 59, the Hants specimens bred from *Ectropis* luridata (syn. extersaria). (B.M.Coll.)

Probolus concinnus Wesmael, 1853*

This is a distinct species. England: Hants; W. Suffolk; Northants; Cornwall. 63, 49, vii–ix. (B.M.Coll.)

PLATYLABINI

Rhyssolabus arcticus Hellén, 1942

Scotland: Inverness; Cairn Lochain, 3-4,000 ft., 13, 3.vii.1934 (R. B. and J. E. Benson); Aviemore, ex Psodos coracina, 19, 22.v.1948 (A. Richardson). (B.M.Coll.) I am indebted to Mr. G. Heinrich, who pointed out the probable identity of this species.

Platylabus intermedius Holmgren, 1871

ENGLAND: Devon; Bickleigh, 13, 19.vi.1880 (G. C. Bignell), previously det. as pedatorius (F.) (Bignell Coll.); Cornwall; Botusflemming, 13 (T. A. Marshall). Scotland: Inverness; Cairn Lochain, 3-4,000 ft., 13, 3.vii.1934 (R. B. and J. E. Benson); Ross-shire; Glenshiel, 13, 1.vii.1934 (O. W. Richards). (B.M.Coll.)

Platylabus opaculus Thomson, 1888

England: Essex; Colchester (Harwood); Ireland: Co. Cavan; Farnham, 29. vi. 1935 (R. C. Farris) 23, 64. (B.M.Coll.)

Platylabus gigas Kriechbaumer, 1886.

ENGLAND: Hants; New Forest, 13, 29.iv.1912 ex Selenia tetralunaria (F. C. Woodforde). (Hope Department, Oxford).

Platylabus punctifrons Thomson, 1888*

ENGLAND: Essex; Colchester, 13, 19 (Harwood); Frinton, 29, viii and ix.1919 (C. G. Nurse); Suffolk; Sudbury, 19, 1916 (P. Harwood); Kent; Halstow Pier (flying south over Thames estuary), 19, 25.ix.1949 (J. F. Burton). (B.M.Coll.) 39 ex Eucymatoge subnotata, 18.viii.1879 (previously det. as pedatorius (F.)) (G. C. Bignell Coll.).

Platylabus obator Desvignes, 1856*

This is a distinct species, recognizable from *pedatorius* (F.) by the black stigma and more strongly raised epicnemia, and in the female by the conspicuously black apex to the hind femur. England: Devon; Hereford; Herts; Surrey; Glos.; Cornwall. 493, 79, v-vii. (B.M.Coll.) In 1941 and 1942 the male of this species was quite common flying around *Galium molugo* in the lanes around Newton Abbot.

Platylabus rufiventris Wesmael, 1844.*

England: Devon; Dartmoor, 13, 18. viii. 1934 (R. C. L. Perkins). (B.M.Coll.)

Platylabus concinnus Thomson, 1888

England: Devon; Braunton, 13, 5.vii.1930 (Wright); Cornworthy, 19 (T. A. Marshall); Essex; Colchester, 13, 1909 (Harwood); Suffolk; 19, bred 4.viii.1911 (C. G. Nurse). Both the females were previously det. as dolorosus (Gravenhorst). (B.M.Coll.) Lichfield, 29, 1921, det. as Platylabus daemon by Schmiedeknecht. (Carr Coll.) Heinrich has placed this species in Asthenolabus, but in spite of its rather small thyridiae, I consider it better retained in Platylabus.

Asthenolabus latiscapus Thomson, 1894

England: Devon and Suffolk ex Euphyia cuculata, 73, 32. vi-vii. (B.M.Coll.)

PHAEOGENINI

Dicaelotus orbitalis Thomson, 1891

ENGLAND: Suffolk; Assington, 19, 16.v.1902 (C. Morley). (B.M.Coll.) IRELAND: Co. Kildare; Rye Water, 19, 8.vii.1945 (A. W. Stelfox). (Stelfox Coll.)

Dicaelotus pudibundus (Wesmael, 1844)*

ENGLAND: Bucks; Slough, 19, 9.vi.1937 (O. W. Richards). (B.M.Coll.) Isle of Wight; Ryde, 19, 11.viii.1902 and 19, 17.viii.1903 (det. previously as rufilimbatus (Gravenhorst)). (C. Morley Coll.)

Dicaelotus pictus (Schiedeknecht, 1903). (comb. nov.)

syn. Deloglyptus pictus Schmiedeknecht.

ENGLAND: 13, Desvignes Coll. (previously det. as *Herpestomus arridens* (Gravenhorst)); Herts; Boxmoor, 19, 11.v.1935 (R. B. and J. E. Benson). (B.M.Coll.)

Dicaelotus punctiventris (Thomson, 1891). (comb. nov.)

syn. Deloglyptus punctiventris Thomson.

England: Bucks; Burnham, in empty barn, 19, 21.vii.1941 (O. W. Richards). (B.M.Coll.) Suffolk; Barton Mills, 19, 5.vi.1916 (C. Morley) previously det. as Melanomicrus elliotti Morley. (C. Morley Coll.)

Dicaelotus erythrostomus Wesmael, 1844

England: Hants; Sopley Common, on sand, 19, 16.vii.1949 (O. W. Richards); IRELAND: Co. Galway; Bencorr, 2,000 ft., 19, 3.vii.1946 (R. A. Lever). (B.M. Coll.)

Dicaelotus cameroni Bridgman, 1881

This I regard as a distinct species. I have seen only the type from Britain and a single female from Germany (Ruthe Coll.).

Dicaelotus rufoniger Berthoumieu, 1896

syn. Dicaelotus pumilus var. rufoniger Berthoumieu.

The majority of the material of this species that I have examined has been from Ireland. In the B.M.Coll. are specimens from Co. Wicklow, Co. Sligo, Co. Kildare and Co. Wexford (A. W. Stelfox), and a Q from Herts; St. Albans (T. A. Marshall). I have also examined 3δ and 20Q in the A. W. Stelfox Coll.

Dicaelotus inflexus Thomson, 1891

England: 19 (Desvignes). (B.M.Coll.) Ireland: 19. (Stelfox Coll.)

Dicaelotus morosus Wesmael, 1855

England: Bucks; Kent. Ireland: Co. Leitrim. 272. (B.M.Coll.)

Eparces grandiceps Thomson, 1891*

No locality, 19, 14. iv. 1900, det. as *C. opprimator* C.M., ix. 1902. (C. Morley Coll.) This is probably the specimen recorded by Morley from Bramford Marshes, near Ipswich (*Brit. Ichs.* 1:281).

Micrope macilenta (Wesmael, 1844)

IRELAND: Co. Kildare; Skerries Bog, 12, 23.ix.1948 (A. W. Stelfox). (Stelfox Coll.) I have followed Thomson's interpretation of this genus and species.

Diadromus tenax Wesmael, 1844*

ENGLAND: 10, Desvignes Coll. (B.M.Coll.)

Diadromus albinotatus (Gravenhorst, 1829)

ENGLAND: Devon; Newton Abbot, 23, 3.viii.1941 (J. F. Perkins) and 12, 6.viii.1941 (R. C. L. Perkins). (B.M.Coll.)

Phaeogenes curator (Thunberg, 1822)

England: 19, Desvignes Coll.; Monmouth; Trelleck Beacons, 19, 10.vi.1936 (E. B. Britton and J. F. Perkins). (B.M.Coll.)

Phaeogenes elongatus Thomson, 1891

ENGLAND: Herts; Bricket Wood, 19, 17.vi.1936 (R. B. Benson). (B.M.Coll.) No locality, 13, bred ex E. nigricostana (Bignell); Suffolk; Monks Soham Garden, 13, 14.viii.1917; 19, without data. All previously det. as Centererus opprimator (Gravenhorst). (C. Morley Coll.)

ALOMYINI

Alomya semiflava Stephens, 1835*

A rather common species, appearing later in the year than debellator (F.) (see Perkins, 1952, Bull. ent. Res. 48: 363).

XI. DESCRIPTIONS OF NEW SPECIES OF BRITISH ICHNEUMONINAE

Below are given the descriptions of the species that I believe to be previously undescribed. Due to the lack of grouping of the many species that have already been described, it is very difficult indeed to be at all certain of this. When the opportunity arises for someone who has very extensive collections of the European species of this subfamily, to see all the types that are scattered throughout Europe, it is certain that many species that are now thought to be distinct will prove to be already described under other names.

Ichneumon quartanus sp. nov.

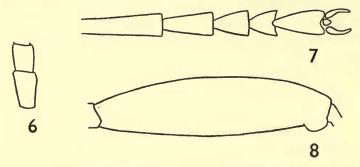
Similar to *Ichneumon insidiosus* Wesmael (of which I have examined the series of syntypes) in general facies and in the relatively short basal segments of the flagellum, but at once distinguished from that species in having a large, ivory, apical spot on tergite 5 of the gaster.

Q. Head distinctly narrowed behind the eyes; malar space long, longer than the post-anellus (malar space: breadth of base of mandible about 1.2:1); mandible strongly narrowed to the apex, the lower tooth distinct; inner orbits sub-parallel centrally; antenna with 42-44 segments; flagellum with the basal segments somewhat short (Fig. 6), conspicuously widened beyond the middle and strongly attenuate apically, beneath, at its widest, with the flattened

ventral area of the segments a little broader than long; post-anellus length: breadth about $r \cdot 5 : r$; frons, dorsally, coarsely rugose-punctate, with only indistinct microsculpture; face rather coarsely punctate, irregularly striate beneath the antennal sockets and, in part, on the epistoma; clypeus rather coarsely, rather sparsely punctate with an apical row of closer punctures.

Thorax similar in sculpture to *insidiosus*, but the pronotum, laterally, with coarser punctures; propodeum with the area superomedia a little transverse; area petiolaris rugose-punctate, not divided from the more coarsely rugose areae internae; middle tarsus a little stout as in *insidiosus* (Fig. 7); hind femur (Fig. 8) a little thinner than in *insidiosus*, length: breadth about 3.9: I (in *insidiosus* about 3.6: I); hind coxa closely punctate, with no scopa.

Gaster with the central area of post-petiole with the striae rather close and rather regular; tergite 2 with moderately broad thyridiae (breadth: distance between thyridiae about 1:1·25), rather closely punctate, in part striate between the gastrocoeli and centrally, tergite 3 basally with the punctures comparable with those at the apex of tergite 2, becoming sparser apically, but still clearly impressed.



Figs. 6-8. Ichneumon quartanus, Q; fig. 6, Antennal segments 3 and 4; fig. 7, middle tarsus; fig. 8, hind femur.

Colour: head black, inner orbits sometimes yellow or red; scape and pedicel black, segments 3–8 of antenna red, 9–15/16 ivory, the following segments fuscous or black; thorax black, scutellum largely ivory; gaster with the tergites black, the post-petiole in part and tergites 2–3 red (3 sometimes fuscous apically); tergites 4–7 with an apical ivory spot, that on 4 being narrower than the spot on 5; coxae and trochanters black, trochantelli red; femora red with the hind femur broadly black dorsally and apically; tibiae and tarsi red, the hind tibia narrowly infuscate apically and the apical hind tarsal segments infuscate; wings yellowish clouded, costal vein and stigma pale testaceous.

Length: 12 mm. 3. Unknown.

HOLOTYPE. Q. Hym. 3b 1821. ENGLAND: Westmorland; Langdale Pikes, 20. vi. 1937 (A. E. Wright). (B.M.Coll.)

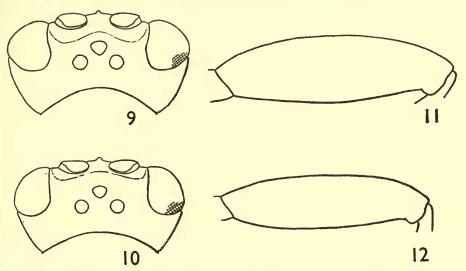
PARATYPE. Q. SCOTLAND: Inverness; Nethy Bridge, 1931 (P. Harwood). (B.M.Coll.)

Ichneumon caproni sp. nov.

Closely related to *Ichneumon nereni* Thomson and to *minutorius* Desvignes (= captorius Thomson). (I have examined the type or syntypes of all these species.) It differs from both these species in having a thicker hind femur and in having the

head less sharply and more convexly narrowed behind the eyes; the post-petiole is less strongly striate as in *nereni*, but has no white spot at the apex of tergite 5 (in the seven examples seen), whereas in *nereni* it is most usually present.

Q. Head convexly narrowed behind the eyes (Fig. 9); malar space long, but slightly shorter than the post-anellus; mandible strongly narrowed to the apex, the lower tooth distinct; inner orbits sub-parallel centrally; antenna with 32-34 segments, flagellum with the basal segments elongate, distinctly widened beyond the middle and attenuate apically; post-anellus length: breadth about 2:1; ninth antennal segment about as long as broad; frons rugose-punctate above, with microsculpture; face punctate, striate-punctate beneath the antennal sockets, and with sparser, coarser punctures on the epistoma, clypeus basally with the punctures similar to those on the epistoma, at most with a few scattered punctures in the apical half.



Figs. 9-12. Head dorsally, hind femur laterally: figs. 9 and 11, Ichneumon caproni, Q; figs. 10 and 12, I. nereni, Q.

Thorax similar in sculpture to *nereni*, though the punctures on the whole are a little smaller and closer; propodeum with the area superomedia a little transverse, the area petiolaris not margined laterally, punctate or punctate-rugose, becoming rugose, narrowly, dorsad, but clearly differentiated from the more coarsely rugose areae internae; front and middle tarsi a little broader than in *nereni*; the hind femur a little incrassate, length: breadth about 3.5: I (Fig. II); hind coxa a little more finely and a little more closely punctured than in *nereni*, with no scopa.

Gaster with the post-petiole rather finely striate; tergite 2 rather coarsely punctate, somewhat striate between the gastrocoeli and centrally, the thyridiae rather narrow (breadth: distance between thyridiae about 1:1.75); tergite 3 basally, similar in sculpture to the apical half of tergite 2, the punctures very shallow or erased apically.

Colour: head black, inner orbits red, or yellow or at least with pale marks on the frontal orbits; scape black, sometimes marked with red, pedicel fuscous; antennal segments 3–8 red, sometimes marked with fuscous, segments 8/9-14/15 ivory, the following segments fuscous or black; thorax black, the sub-alar callus sometimes marked red, scutellum for the greater part ivory; gaster with the tergites black, except the apex of the post-petiole marked with red; tergites 2–3 red, sometimes marked with yellow, 6 and 7 with a large, ivory, apical spot; legs

with the coxae and trochanters black, the trochantellus red; front and middle femora red, broadly marked with black; hind femur black narrowly red basally; front and middle tibiae and tarsi testaceous, the apex of middle tibia and apical tarsal segments sometimes infuscate: hind tibia testaceous, fuscous apically; hind tarsus fuscous or black, sometimes paler basally; wings very weakly smoky, the costal vein pale testaceous, fuscous apically, the stigma testaceous.

Length: 9-11 mm.

3. Unknown.

HOLOTYPE. Q. Hym. 3b 1822. ENGLAND: (Capron Coll.) (B.M.Coll.) PARATYPES. ENGLAND: 19 (Capron Coll., det. as gracilicornis by Capron); 19, B.M. British Coll. (det. as ammonius in Desvignes' catalogue). GERMANY: 19, Ant., 6.x (Buchecher); 19, Lag., 4.viii. 1865 (Buchecher). France: 19, Castellane, 9.iv. 1931 (C. Morley). (B.M. Coll.) ENGLAND: 12, Capron Coll. (det. as gracilicornis by Capron). (C. Morley Coll.)

Ichneumon aquilonius sp. nov.

Related to vulneratorius Zetterstedt, walkeri Wesmael and polyonomus Wesmael (this latter I regard as a subspecies of walkeri, from the Alps). It differs from vulneratorius in having the clypeus remotely punctate in the apical half and the central area of the post-petiole much more strongly, longitudinally striate; from walkeri and polyonomus in having the hind coxa much more coarsely, though closely punctate beneath and with no trace of a scopa; superficially it differs from all three in having an orange-coloured scutellum (though this may well vary). As with most of these northern species, the colour will probably show great variation.

Q. Head strongly narrowed behind the eyes; malar space long, about 11/2 times as long as the breadth of base of mandible; mandible strongly narrowed to the apex, the lower tooth distinct; inner orbits diverging a little ventrad; antenna with 33 segments; flagellum with the basal segments elongate, conspicuously widened beyond the middle and attenuate apically, at the widest with the flattened, ventral area of the segments slightly wider than long; postanellus length: breadth = 1.7:1; flagellar segment 5/6 quadrate; frons, dorsally rugosepunctate and in part with microsculpture on the rugae and in the interspaces between the punctures; face, for the most part, with clear punctures becoming rugose-punctate beneath the antennal sockets and in part centrally; clypeus with rather sparse punctures, very sparse in the apical half but with an apical row of more or less distinct, rather close punctures.

Thorax similar in sculpture to vulneratorius; propodeum with the area superomedia quadrate or a little transverse, more or less closed posteriorly, the area petiolaris not margined laterally, punctate dorsad, rugose ventrad and thus little differentiated in sculpture from the areae internae; front and middle tarsi thin, as in vulneratorius; hind coxa closely punctate beneath tending to rugose-punctate before the apex, with no scopa; hind femur moderately thin as in vulneratorius.

Gaster with the central area of the post-petiole coarsely, longitudinally striate; tergite 2 with broad transverse thyridiae (breadth: distance between thyridiae about 1.8:1); tergite 2 closely punctate, in part striate between the gastrocoeli and centrally; tergite 3 closely punctate basally, becoming more sparsely punctate apically.

Colour: head black with the clypeus, epistoma and inner orbits red; scape red, fuscous basally; pedicel fuscous; basal flagellar segments red or marked with fuscous, antennal segments 8/9-13/14 ivory, beyond this black; pronotum black with the collar centrally, and the upper margin laterally, red; mesosternum and mesopleurum black with the sub-alar callus marked with red; mesoscutum red, more or less marked with fuscous anteriorly; scutellum orange; post-scutellum red; propodeum black; gaster red, the 4th segment sometimes black, the following segments black; legs red with the coxae and trochanters black (in part, slightly reddish in the type); femora sometimes conspicuously marked with black; apex of hind femur and apical tarsal segments sometimes marked with fuscous; wings yellowish, the costal vein and stigma pale testaceous.

Length: 8 mm. d. Unknown.

HOLOTYPE. Q. Hym. 3b 1823. SCOTLAND: Perthshire; Killin, 15-21.vi.1932 (R. B. Benson).

PARATYPE. Q. ENGLAND: Westmorland; Fairfield, c. 2,500 ft., 5.iv.1938 (G. J. Kerrich).

THYRATELES gen. nov. (Ichneumonini)

Clypeus flat; the occiput somewhat impressed behind the ocelli; mandibles strongly narrowed to the apex; pronotal collar rather narrow, the transverse groove deeply impressed; scutellam strongly convex; propodeum with the basal groove distinct, the area basalis with no central tubercle, the area superomedia more or less quadrangular, no dentiparal spines; post-petiole with the central area longitudinally striate or rugose-striate, and not conspicuously

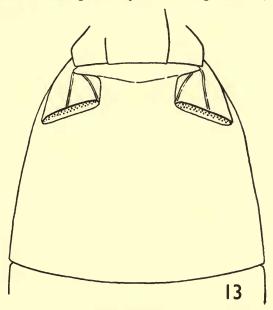


Fig. 13. Thyrateles camelinus, Q: 2nd tergite.

raised at the line of the spiracles; gastrocoeli deep and broad, thyridiae distinct (Fig. 13); claws impectinate.

Q with the hypopygium as in Amblyteles; the flagellum strongly elongate.

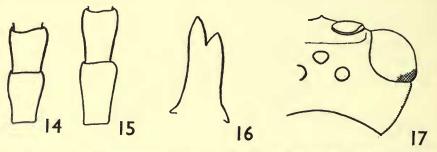
Type species Amblyteles camelinus Wesmael.

This genus belongs to that group represented in the Holarctic region by *Patroclus*, *Ctenamblyteles* (syn. *Pseudamblyteles*) and *Hybophorellus*. All these genera have

females in which the hypopygium is like Amblyteles, but which have conspicuous and often large thyridiae. A few species in Amblyteles have small thyridiae, but Ctenichneumon, with which certain of the above genera have previously been confused in Europe, has the thyridiae completely absent. Both Patroclus (to which the European Ctenichneumon sputator (F.) belongs) and Ctenamblyteles have the claws pectinate at least towards the base (this pecten is not to be confused with the row of oblique, contiguous, basal teeth). Hybophorellus has shallow gastrocoeli, a strongly convex clypeus and dentiparal spines. Amongst the material in the British Museum I have noted no species outside this area which would be referable to this group. Descriptions most usually fail to mention the presence or absence of thyridiae which seem important in this section of the Ichneumoninae.

Spilichneumon celenae sp. nov.

This species belongs to the section of *Spilichneumon* having, in the female, robust mandibles with the lower tooth small and much shorter than the enlarged upper tooth, the hypostomal carina conspicuously raised and the front and middle tibiae coarsely spinulose.



Figs. 14-17. Antennal segments 2 and 3: fig. 14, Spilichneumon celenae, Q; fig. 15, S. simplicidens, Q. Mandible, fig. 16, and head dorsally, fig. 17, S. celenae, Q.

Q. Head with the temples distinctly narrowing behind the eyes (Fig. 17); malar space a little shorter than the breadth of base of mandible; mandible with the sides of the shaft subparallel, only very weakly expanded beyond the middle, the upper tooth larger than the lower (Fig. 16); antenna very little widened beyond the middle, strongly attenuate apically, with 36 segments, the post-anellus short, length: breadth about 1.2: I (Fig. 14), the 4th antennal segment sub-quadrate; frons dorsally, coarsely punctate and weakly coriaceous; face rather coarsely punctate, somewhat striate dorsad and with the punctures becoming finer and sparser towards the malar space; clypeus (which is relatively a little smaller than in stagnicola) rather coarsely punctate, the punctures more sparse centrally, towards the apex.

Thorax: sculpture similar to that of stagnicola; pronotal collar short; propodeum with the strongly elongate area superomedia open behind, the lateral carinae erased posteriorly and the area petiolaris divided from the areae internae; front and middle tarsis a little expanded (mid tarsus with segment 2 about twice as long as broad), hind femur thickened (length: breadth about 3.2:1).

Gaster with the post-petiole finely striate; tergite 2 with small and very shallow gastrocoeli, thyridiae absent, rather finely, rather sparsely punctate, the punctures sparser apically, only striate at the extreme base; 3rd tergite basally similar in puncturation to the apex of the 2nd,

apically with the punctures becoming very fine and very sparse; 4th tergite basally similar in puncturation to the apex of the 3rd, apically, together with the remaining segments with only

very fine punctures; sternites 2 and 3 with a ventral fold.

Colour: head black, sometimes with the inner and vertical orbits more or less red-marked; antenna black or fuscous, with segments 8–13 ivory or marked with ivory; thorax black, pronotal collar sometimes red-marked centrally, scutellum for the greater part ivory; legs with the coxae black, trochanters black, narrowly yellow apically; front and middle trochantelli black or piceous, femora red, black basally, tibiae and tarsi testaceous, the apex of the tarsi somewhat infuscate; hind trochantellus red, fuscous dorsally, femur black, reddish apically and at extreme base, tibia pale testaceous, fuscous apically, tarsus testaceous with the apices of the segments infuscate; gaster black with tergites 2 and 3 red, 4 basally, laterally, sometimes red; tergites 6 and 7 with a large, ivory apical spot; wings with the costal vein pale testaceous, fuscous apically, stigma pale testaceous.

3. Head with the temples distinctly narrowing behind the eyes; malar space about half as long as the breadth of base of mandible; mandible with the sides of the shaft narrowing distally; antenna with tyloidae on segments 5/6-17/19, that on 5 when present being weak; frons rugose-punctate above; face coarsely punctate, striate in part below the antennal sockets; clypeus coarsely punctate, weakly rounded apically; thorax more coarsely and closely punctured than in the female; propodeum with the area superomedia elongate and closed posteriorly, the lateral carinae complete, the area petiolaris divided by strong carinae from the

areae internae; hind femur, length: breadth about 3.7:1.

Gaster with the post-petiole more coarsely and irregularly striate than in the \$\mathbb{Q}\$; tergite 2 with the gastrocoeli ill-differentiated and shallow, thyridiae absent, rather closely punctured, striate between the gastrocoeli and extending more or less to the apex of the segment; tergite 3 sub-quadrate, a little more finely and less closely punctate than tergite 2, centrally, basally striate-rugose; sternites 2 and 3 with a median fold; hypopygium with a sub-acute, central,

apical projection.

Colour: head black; face yellow, black centrally, varying to black with the orbits yellow; clypeus yellow sometimes marked with black; scape marked with yellow beneath; thorax black, collar sometimes red centrally, scutellum marked with yellow, tegula pale testaceous; coxae black, trochanters black, narrowly yellow apically; trochantelli testaceous, fuscous dorsally; front and middle femora red, broadly marked with black; front and middle tibiae and tarsi testaceous, the tarsi in part infuscate; hind femur black, narrowly red basally and apically; hind tibia pale testaceous, fuscous apically; hind tarsus fuscous, testaceous basally; gaster black; extreme apex of post-petiole, and tergites 2 and 3 testaceous; tergite 4 testaceous laterally, basally; wings with costal vein pale testaceous, infuscate apically, the stigma pale testaceous.

Length: 3 12 mm., 9 11 mm.

HOLOTYPE. Q. Hym. 3b 1824. IRELAND: ex Celena haworthii, 1884 (W. V. de F. Kane). (B.M.Coll.)

ALLOTYPE. J. IRELAND: Co. Wicklow; Tonlagee Mt., 1-2,000 ft., 22. viii. 1937 (A. W. and G. M. Stelfox). (B.M.Coll.)

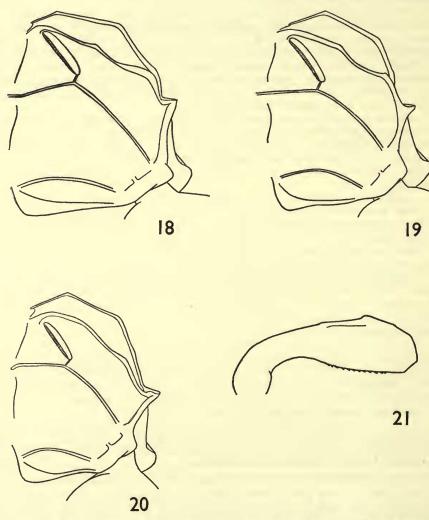
PARATYPES. SCOTLAND: 12, Sutherland; R. Traligal, Glen Dubh, 19. vi. 1948 (J. Balfour-Browne). IRELAND: 13, same data as allotype. (B.M.Coll.) SWEDEN: 12. (Thomson Coll., Lund University Museum).

This species is closely related to *simplicidens* (Thomson) and agrees with it in the form of the mandible, but *simplicidens* differs in having the basal flagellar segments more elongate (post-anellus length: breadth about 1.6:1, 4th antennal segment about 1.3:1), the hypostomal carina a little less raised, the post-petiole more coarsely striate, tergite 3 in greater part fuscous and the legs much more broadly infuscate.

The males from Skåne, Ringsjön, which Thomson had associated with the single female type of simplicidens I believe to belong to celenae.

Amblyteles (Triptognathus) propinquus sp. nov.

Much confusion has existed in Britain between Amblyteles uniguttatus (Gravenhorst) and conspurcatus (Gravenhorst) and Ctenichneumon panzeri (Wesmael). I have now, however, seen material from England which does belong to the uniguttatus group of species with the mandible unidentate, but which appears to be distinct from described species. It may be a subspecies, but this has yet been impossible to determine. I



Figs. 18-21. Propodeum: fig. 18, Amblyteles conspurcatus, 3; fig. 19, A. propinquus, 3; fig. 20, A. uniguttatus, 3. Apex of penis valve, fig. 21, A. propinquus.

have also seen material of the same form in the Wesmael collection, from the dunes near Ostend. Only the male is known to me.

3. More robust than uniguttatus, less robust than conspurcatus. Similar to uniguttatus, but with the vertex deeply and more sharply impressed behind the ocelli; mesoscutum at least in part a little less closely punctate, the propodeum deeply excised before the dentiparal spines (Fig. 19) (the excision a little less abrupt than in conspurcatus); mesopleurum with the speculum clearly punctate (as in uniguttatus); thyridiae distinct but small, in breadth subequal to the length of the 4th middle tarsal segment (in uniguttatus broader than this; in conspurcatus the thyridiae absent).

Colour: black; clypeus sometimes with an ivory spot on each side; pronotum with the collar centrally and the mark in the hind angles ivory; sub-alar callus and scutellum in greater part ivory; gaster with tergites 2-4 testaceous, 4 marked with fuscous; apical tergites and genital claspers not marked with ivory; sternites 2-3 and in part 4, testaceous; front and middle femora red, yellow apically and sometimes dorsally, often marked with black posteriorly and beneath, the tibiae and tarsi pale testaceous, the tarsi in part infuscate; hind coxa sometimes with an ivory, dorsal mark, hind femur red, varying to black but most usually retaining a yellow dorsal stripe (in the darkest specimen seen the femur is black with a reddish dorsal stripe), hind tibia testaceous, narrowly infuscate apically, in dark specimens with the fuscous markings more extensive, hind tarsus fuscous, usually pale at the base; wings weakly smoky, darker apically, with the costal vein fuscous becoming testaceous in basal \(\frac{1}{3}\), stigma testaceous, margined with fuscous.

Penis valves similar to those of uniguttatus and conspurcatus (Fig. 21).

Length: 16-18 mm.

HOLOTYPE. J. Hym. 3b 1825. ENGLAND: Cambs; Croydon, 17.vi.1945 (C. E. Tottenham). (B.M.Coll.)

PARATYPES. ENGLAND: Cambs; 53, Croydon, 17-23.vi.1945. (C. E. Tottenham). Suffolk; Sudbury, Gull Lane, 17.vii.1922 (P. Harwood). (B.M.Coll.)

Platylabus stolidus sp. nov.

This species belongs to the group of *pedatorius* (F.), having the strongly expanded hypostomal carina; it differs from the other species of the group that are known to me in having the temples relatively strongly enlarged.

Q. Head with the temples large, sub-parallel directly behind the eyes (Fig. 22); frons dorsal distinctly punctate; face coarsely punctate, the punctures becoming finer towards the orbits and sub-rugose on the epistoma, the inter-antennal tubercle weak; clypeus closely punctate basally, more sparsely punctate in apical third, little convex (conspicuously flatter than in pedatorius); antenna very little widened before the apex, 39 segments, similar to that of pedatorius; hypostomal carina broad.

Thorax with the sculpture similar to that of *pedatorius*; the epicnemia not strongly raised; notauli vaguely impressed anteriorly; dentiparal area with no apical tooth; the area superomedia a little transverse; area petiolaris clearly differentiated by lateral carinae, trans-striate-rugose; hind femur rather stout, length: breadth about 3.2: I (of *pedatorius* about 3.7: I);

hind tarsus with segment 1 a little longer than segments 2 + 3 + 4.

Gaster with segment 1 similar in form and sculpture to that of *pedatorius*; tergite 2 with the distance between the thyridiae a little greater than in *pedatorius* (thyridiae: distance between thyridiae about $1 \cdot 5 : 1$) and a little more oblique than in that species, punctate or rugose between the gastrocoeli and behind the thyridiae, otherwise with clear punctures which become shallow

and ill-defined towards the hind margin, covered in coriaceous sculpture as are the following segments; tergite 3 with clear, shallow punctures basally, fading out in the apical third.

Colour: black; malar space apically ivory; frontal orbits marked with yellow, outer orbits sometimes marked with yellow centrally; antenna with segments 10/11-14/15 with an ivory dorsal stripe, scape with a small, yellow, basal spot beneath; mandibles red towards apex; tegulae sometimes marked with pale testaceous; gaster with the apices of the tergites piceous, tergite 2 piceous basally; trochantelli narrowly red apically sometimes in part with piceous markings, that of the front leg pale, sometimes testaceous beneath; front and middle femora and tibiae red, their tarsi fuscous, in part testaceous; hind femur red, distinctly though rather

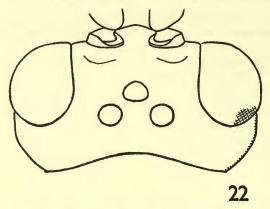


Fig. 22. Platylabus stolidus, Q: head dorsally.

narrowly black apically, hind tibia black, usually red in basal third, hind tarsus black, the segments reddish basally and segments I and 2 with a small red apical spot; wings with the costal vein pale testaceous, fuscous apically and the stigma black.

Length: 9-11 mm.

3. Unknown.

HOLOTYPE. Q. Hym. 3b 1826. England: Essex; Colchester (*Harwood*). (B.M.Coll.)

PARATYPES. BELGIUM: 19, Steinbach, 18. viii. 1875; 19, Francorchamps, 3. viii. 1899 (Severin). (Coll. Tosquinet, Brussels Museum).

Differs from *pedatorius* in the broader temples, the black stigma, the black apex to the incrassate femur, the flatter clypeus.

Platylabus odiosus sp. nov.

This species belongs to the pedatorius (F.) group.

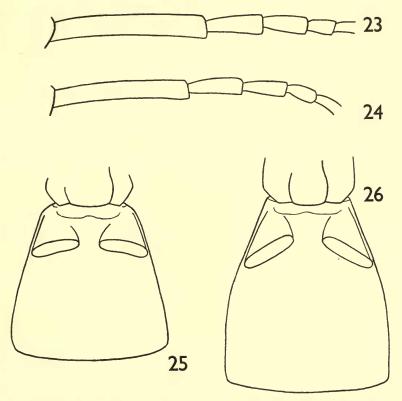
Q. Head with temples strongly narrowed behind the eyes, a little convex; frons, above, coriaceous, with shallow, ill-defined punctures and striae; face strongly punctate becoming rugose-punctate on the epistoma; the inter-antennal tubercle weak; clypeus strongly punctate basally, very sparsely punctate in apical third, convex; antenna hardly widened before the apex, with 39-40 segments; hypostomal carina broad.

Thorax with the puncturation similar to *pedatorius*, but with distinct microsculpture between the punctures on the lateral lobe; the epicnemia not distinctly raised, notauli vaguely impressed anteriorly; dentiparal area with no apical tooth; area superomedia less transverse than in

pedatorius; area petiolaris clearly differentiated by lateral carinae, striate-rugose; hind femur with length: breadth about 3.8:1; hind tarsus a little thinner than in pedatorius, and with segment 1 subequal to segments 2 + 3 + 4 (Fig. 24).

Gaster a little narrower than in *pedatorius*, the 1st segment similar in form to *pedatorius*; tergite 2 with thyridiae: distance between thyridiae about 2:1 (cf. Fig. 26), rugose between the gastrocoeli, otherwise punctate, the punctures becoming very feeble apically, mostly coriaceous, as are the following segments; tergite 3 with clear, shallow punctures in basal half.

Colour: black; apex of malar space ivory, frontal orbits and usually external orbits centrally, yellow; antenna with segments 11/12-14/15 with an ivory dorsal stripe, the scape sometimes



Figs. 23-26. Hind tarsal segments 1-4: fig. 23, Platylabus pedatorius, Q; fig. 24, P. odiosus, Q. Tergite 2: fig. 25, P. pedatorius, &; fig. 26, P. odiosus, &.

yellowish basally, beneath; mandibles red towards apex; scutellum towards apex and usually post-scutellum, marked with yellow; tegula usually marked with yellow; gaster with the tergites somewhat piceous apically, tergite 2 also piceous basally; sternites in part somewhat piceous marked; trochanters very narrowly reddish apically; front and middle trochantelli, femora, tibiae and tarsi red, the tarsi in part somewhat infuscate; hind trochantellus in part red, femur red, rarely with an extremely narrow fuscous mark apically, tibia black, red in basal third, tarsus black, with the bases of the segments usually more or less reddish and segments I and 2 with a small, dorsal, apical, red spot; wings with the costal vein pale testaceous, fuscous apically, stigma black.

3. Similar to the Q but more slender, the punctures of the abdomen deeper and more distinct, the 1st segment of hind tarsus shorter than segments 2+3+4; the face and clypeus marked

with yellow, the antenna with no white stripe above, the scape broadly yellow beneath, the femur narrowly fuscous apically.

Length: ♂ 10 mm., ♀ 8-10 mm.

HOLOTYPE. Q. Hym. 3b 1827. ENGLAND: Devon; Newton Abbot, 8.x.1941 (R. C. L. Perkins). (B.M.Coll.)

ALLOTYPE. 6. BRITISH ISLES (T. A. Marshall). (B.M.Coll.)

Paratypes. England: 4° , Cornwall; Botusfleming (T. A. Marshall); 1° (Cameron); 1° (Capron). Germany: 2° , Apfl., 1° . (Buchecher). (B.M.Coll.)

This species has the interspaces between the punctures on the mesoscutum less strongly coriaceous than in the *opaculus* Thomson group, and also has the hypostomal carina strongly raised as in *pedatorius*. It differs from *pedatorius* in the sculpture of the mesoscutum, the black stigma and the different proportions of the hind tarsus (in *pedatorius* \mathfrak{P} , tarsus \mathfrak{r} is distinctly longer than $\mathfrak{r} + \mathfrak{r} + \mathfrak{r} + \mathfrak{r}$).

Cyclolabus dubiosus sp. nov.

The species related to pactor (Wesmael) are most obscure, and it is possible that more than two species (pactor and dubiosus) occur in the British Isles. In dealing with our species I have felt it necessary, however, to distinguish this species from pactor. I give the differences in the form of a table. I have examined the syntypes of pactor in the Wesmael collection.

pactor (Wesmael).

♀♂. Thyridiae very broad; breadth of thyridia: distance between thyridiae about 1.9:1 (Fig. 28).

Scutellum at most with the lateral keels present basally.

Area superomedia usually receiving the costula behind, or at the middle.

Q. Lateral lobes of the mesonotum, centrally, polished between the punctures.

3. Mesopleurum more sparsely punctate.

dubiosus sp. nov.

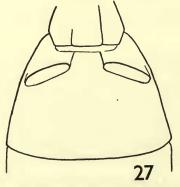
Thyridiae narrower; breadth of thyridia: distance between thyridiae about 1.5: I (Fig. 27).

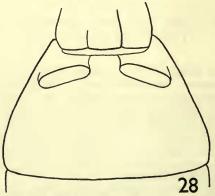
Scutellum with the lateral keels extending to the middle, where they are inwardly curved.

Area superomedia receiving the costula before the middle.

Lateral lobes of the mesonotum with surface sculpture between the punctures.

Mesopleurum in part sub-rugosely punctate.





Figs. 27, 28. Tergite 2: fig. 27, Cyclolabus dubiosus, Q; fig. 28, C. pactor, Q.

HOLOTYPE. Q. Hym. 3b 1828. ENGLAND: Essex; Colchester, 1902 (Harwood). (B.M.Coll.)

ALLOTYPE. J. ENGLAND: Essex; Colchester, 1903 (Harwood). (B.M.Coll.) PARATYPES. ENGLAND: Glos.; 4J, Staunton, 4-11.vi.1936 (E. B. Britton and J. F. Perkins). Essex; Colchester, 2J (one ex Eucymatoge subnotata) (Harwood). Surrey; 1\(\tau\), Claygate (G. C. Champion). Berks; Ascot, 1J ex Eupithecia goossensiata, x.1934 (E. A. Cockayne). W. Suffolk; 1\(\tau\), bred 18.viii.1911 (C. G. Nurse). Somerset; Crowcombe, 1\(\tau\), ex Eupithecia expallidata, 9.vi.1949 (E. C. P. C.).

I have seen material of pactor bred from Eupithecia insigniata and Eupithecia arceuthata.

Herpestomus wesmaeli sp. nov.

Related to *nasutus* Wesmael, but with the head and thorax conspicuously dorsoventrally flattened, thus approaching the form found in *Eriplatys ardeicollis* (Wesmael), but less depressed than in that genus, and without the intumescent first segment of the gaster.

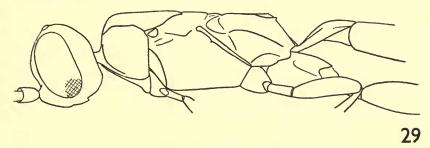


Fig. 29. Herpestomus wesmaeli, 2: head and thorax laterally.

Q. Head with the temples rather short but strongly convex, the vertex broadly and rather deeply excised, and with the plane of the face almost at right angles to that of the frons, which is not intumescent, and with very small antennal scrobes; malar space about 0.8 times breadth of base of mandible; mandible with the lower tooth small and well removed from the apex of the upper tooth; genal carina meeting the hypostomal carina at a distance from the base of the mandible which is less than the malar space; frons closely punctate, tending to striate-punctate, particularly ventrad; vertex finely punctate, becoming more finely and more remotely punctate on the temples; face closely punctate, becoming more finely and more closely punctate on the malar space and with the epistoma convex, sub-quadrate; clypeus with coarser punctures than the face, convex, and with a narrow flattened anterior margin; antenna with 24-26 segments, similar in general form to that of nasutus.

Thorax distinctly dorso-ventrally flattened (Fig. 29); pronotal groove rather shallow, the collar, centrally, broader than in *nasutus* and with the anterior margin centrally not reflexed, laterally with the furrow transcostate, the hind margin transcostate, punctate dorsad and in the hind angle; mesoscutum with very weak short notauli, clearly punctate, polished between the punctures except on the middle lobe anteriorly; scutellum more finely punctured than the mesoscutum centrally, flattened; mesopleurum punctate, somewhat striate posteriorly, ventrad, the speculum more finely punctate; sternaulus rather shallow, transcostate, extending to about the middle; mesosternum elongate, a little more finely punctate than the mesopleurum, viewed laterally with the lateral margin almost straight from the epicnemia to the hind margin,

the prepectus short; propodeum dorsally flattened with the broad area petiolaris subequal in length to the large, almost pentagonal area superomedia, the area basalis obsolete or absent, the costula short, strong, the area externa narrow, the area spiracularis slightly widening at the costula; metapleurum punctate with the clearly defined area coxalis rugose; hind coxa weakly, obliquely transcostate in the dorsal furrow, finely and closely punctate beneath, the punctures becoming a little coarser and a little sparser apically; front wing with the 2nd intercubital unpigmented; hind wing with the nervellus antefurcal.

Gaster with 1st segment rather short, similar to that of nasutus, with distinct, somewhat coarse punctures extending almost from the base nearly to the apex and sometimes, in part, somewhat striate; tergite 2 with rather broad thyridiae, breadth of a thyridiae: distance between thyridiae about 1.5:1, gastrocoeli rather short, rugose, the segment otherwise clearly punctate, the punctures obsolete apically, in far the greater part with no microsculpture between the punctures; tergite 3 with the punctures similar in size to those of tergite 2, obsolete apically; tergite 4 a little more finely and less deeply punctate, the punctures obsolete in apical half.

Colour: black; usually with the epistoma yellow-marked dorsally, and the face with a yellow spot between the antennal sockets, and the orbit, epistoma, clypeus and apex of malar space often piceous or reddish; mandible in part reddish; antenna with the scape, in part, reddish beneath, basal flagellar segments sometimes in part piceous beneath; pronotal collar, centrally, sometimes yellow or red marked; tegula yellow marked posteriorly; coxae black, trochanters narrowly yellowish apically, trochantelli reddish, in part yellowish, rest of the legs reddish, marked with fuscous, the hind legs more extensively fuscous than the front ones, varying to the legs almost completely infuscate; tergites 2–4 piceous, darker centrally, varying to almost completely black with only the apices of the segments red.

 \eth . Similar to the Q but narrower; antenna with 23–24 segments, without tyloidae; scape and pedicel marked with yellow beneath, face and clypeus yellow, mandibles in greater part yellow; pronotal collar often marked with yellow centrally; hind angle of pronotum usually marked with yellow; sub-alar callus usually marked with yellow; tegula yellow; front and middle coxae and trochanters conspicuously marked with yellow, otherwise the legs similarly coloured to Q; tergites black with the apices of the segments (except 1) narrowly yellow.

Length: 34 mm., 94-5 mm.

HOLOTYPE. Q. Hym. 3b 1829. ENGLAND: Bucks; Brickhill, 8.vii.1938 (R. B. Benson). (B.M.Coll.)

ALLOTYPE. 3. Same data as type. (B.M.Coll.)

Paratypes. 23 19, same data as type (B.M.Coll.) Suffolk; 19, Barton Mills, fir, 5.vi.1916 (C. Morley). (C. Morley Coll.) Ireland: Co. Kildare; 19 (A. W. Stelfox). (A. W. Stelfox Coll.)

Dicaelotus fitchi sp. nov.

This species belongs to the *pumilus* (Gravenhorst) group (Group A, Thomson, 1891, *Opusc. Ent.* 15:1618).

Q. Head with the temples sub-parallel directly behind the eyes, strongly convex; malar space very short, the length about one-third of the breadth of base of mandible (Fig. 30), the genal carina almost straight, meeting the hypostomal carina at a distance from the base of the mandible about equal to half the breadth of base of mandible; frons, dorsad, with the clear punctures in the main twice as far from each other as the diameter of the punctures, the vertex and temples with finer punctures, the frons, ventrad, trans-striate; face with the epistoma very short and transverse and strongly convex, divided from the clypeus by a distinct epistomal groove; face striate-punctate beside the sparsely punctate epistoma, and becoming sparsely

punctate towards the orbits; clypeus broad, a little convex, very weakly, broadly projecting centrally apically, basally with rather coarse, sparse punctures; antenna with 25–26 segments; basal segments of flagellum very short, post-anellus sub-quadrate, segment 2 a little elongate, 3 sub-quadrate.

Thorax: pronotum centrally with only a faint indication of the transverse groove, laterally with the furrow trans-striate (as is the posterior margin in greater part), dorsad punctate, the collar punctate; mesoscutum with the notauli present anteriorly, clearly punctate, polished between the punctures except on the central lobe anteriorly; scutellum more finely, more closely punctate, usually with lateral carinae extending to the middle, the scutellar fovea trans-striate; mesopleurum coarsely punctate, striate-punctate posteriorly, ventrad, the speculum only punctate dorsad; sternauli extending to about two-thirds, straight, coarsely trans-striate; mesosternum much more finely and sparsely punctate, the posterior carina broadly interrupted in front of the middle coxae; propodeum similar to that of pumilus; hind coxa punctate, striate beneath on the inner margin, outwardly more sparsely punctate apically.

Gaster with post-petiole punctate laterally, sometimes with scattered punctures centrally, apically, but still with a distinct, unpunctured, central area; tergite 2 (with no gastrocoeli or thyridiae) punctate basally (punctate-striate laterally), the punctures becoming weaker and sparser posteriorly; tergite 3 with the punctures, basally, similar to those in the middle of tergite

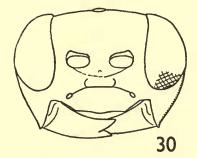


Fig. 30. Dicaelotus fitchi, Q: head from in front.

2, becoming obsolete apically; tergite 4 with indistinct punctures in basal two-thirds; hind wing with the nervellus antefurcal.

Colour: black; clypeus red apically; mandible pale testaceous; antenna with scape red-marked beneath and basal flagellar segments marked with red; pronotum usually with the collar red-marked centrally, hind angles usually red-marked; legs red, the coxae sometimes infuscate basally, and the hind coxae sometimes entirely black; femora and tibiae sometimes fuscous marked; hind tarsus sometimes weakly infuscate; gaster with tergite I red laterally and apically; tergites 2 and 3 red with a pair of central, fuscous spots; tergite 4 red at the base varying to the tergites all black with only the apices of the segments narrowly red or piceous.

3. In general similar to the \mathfrak{P} , but the face longer with the epistoma less transverse, the malar space even shorter (conspicuously shorter than in pumilus), the hypostomal carina arcuately inflexed, but less strongly so than in pumilus; the punctures generally coarser and closer than in the \mathfrak{P} , gaster with the post-petiole evenly punctate, tergite 4 clearly punctate almost to apex; antenna with 29 segments, tyloidae on segments 9–16 (those on 15 and 16 small in the single specimen seen).

Colour similar to the Q, but with the scape yellow beneath, the clypeus entirely yellow, the mandible in greater part yellow (facial orbits with an indication of a yellow mark), pronotum with the collar centrally, and the hind angles marked with yellow, tegula yellow; front and middle coxae and all the trochanters marked with yellow.

Length: 3 6 mm., \$ 5-6 mm.

HOLOTYPE. Q. Hym. 3b 1830. BRITISH ISLES: ex Depressaria apiella (Dr. F. B. White). (Fitch Coll.) This is a specimen with the abdomen little marked with red.

ALLOTYPE. J. BRITISH ISLES (Marshall). (Fitch Coll.)

PARATYPES. 29, same data as Allotype. (Fitch Coll.) England: Suffolk; 19,

Ipswich District, 9.vi.1897 (C. Morley). (B.M.Coll.)

I have also examined 3 females which may represent a distinct species, differing from the darkest of the above in having the tibiae fuscous, ivory basally. I have, however been unable to discover any other reliable differences. Two are from IRELAND: Co. Dublin; The Slade of Saggart, 8.vii.1936 (A. W. Stelfox) (A. W. Stelfox Coll.), and the third from Germany (Ruthe) (B.M.Coll.). This latter specimen is very small, being about 3.5 mm. long.

D. fitchi is superficially most similar to inflexus Thomson, but differs in the shorter malar space, and the 4th antennal segment being relatively a little shorter.

Dicaelotus suspectus sp. nov.

This species, also, belongs to the pumilus (Gravenhorst) group.

Q. Head with the temples sub-parallel directly behind the eyes, strongly convex; malar space moderate, about 0.6 times the breadth of base of mandible, the genal carina conspicuously incurved; from coarsely punctate, the scrobes polished, vertex and temples with finer punctures, which are sparser except behind the posterior ocelli; face with the epistoma short, transverse

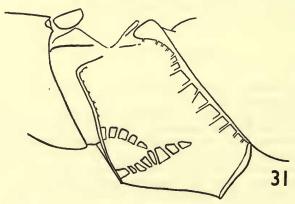


Fig. 31. Dicaelotus suspectus, ♀: mesopleurum.

and strongly convex, divided from the clypeus by a strong epistomal groove; epistoma only punctate laterally, the face beside this striate-punctate, the punctures becoming very sparse towards the orbits; clypeus weakly rounded apically, a little convex, sparsely punctate basally; antenna with 25 segments, the post-anellus sub-equal to the following segment and sub-quadrate, the sub-apical segments conspicuously transverse.

Thorax: pronotum centrally with a weak, transverse groove, laterally with the furrow trans-striate, as in the posterior margin in greater part, punctate dorsad; mesoscutum with the notauli very short but rather deep, clearly, rather sparsely punctate, polished between the punctures except on the median lobe anteriorly; scutellum much more finely and more closely

punctate, carinate laterally to about the middle; mesopleurum coarsely punctate anteriorly, punctate-striate posteriorly, ventrad, the speculum finely, sparsely punctate; sternaulus rather broad, coarsely trans-striate, extending to about two-thirds the length of mesopleurum, and with a coarsely trans-striate mesopleural furrow joining it, and extending forward to the epicnemia (Fig. 31); mesosternum more finely and sparsely punctate, the posterior carina at most very narrowly interrupted at the lateral angle; propodeum similar to that of *pumilus*, but the sculpture weaker; hind coxa punctate, the puncture sparser apically.

Gaster with the post-petiole sparsely punctate, usually punctate-striate laterally, apically; tergites 2 and 3 with clear punctures, becoming obsolete apically; the following tergites rather

sparsely pubescent; hind wing with the nervellus antefurcal.

Colour: black; clypeus red, usually infuscate basally; mandible with the shaft pale red; antenna with the scape red, infuscate dorsally, pedicel and base of flagellum testaceous or marked with testaceous; tegulae pale testaceous; pronotal collar centrally sometimes marked with pale testaceous; legs red, marked with pale testaceous, hind coxa infuscate at least basally, hind femur usually infuscate at least apically, hind tibia sometimes marked with fuscous apically, apical mid and hind tarsal segments usually infuscate.

Length: 4-5 mm. d. Unknown.

HOLOTYPE. Q. Hym. 3b 1831. ENGLAND: Suffolk; Bentley Woods, 16. vi. 1902 (C. Morley). (B.M.Coll.)

PARATYPES. ENGLAND: 19 (Capron). (Morley Coll.) Surrey; 19, Bagshot Heath, 20. viii. 1934 (O. W. Richards). (B.M.Coll.) Sweden: Skåne; 19, Löderup,

22. vii. 1938 (J. F. and D. M. S. Perkins). (B.M.Coll.)

This species is of considerable interest, as not only does it possess a well-developed sternaulus, but also an oblique furrow running between this and the epicnemia, as is found in certain *Hemiteles* (s.l.). In many Porizonini it appears that the anterior part of the sternaulus is missing, and thus only a "mesopleural furrow" is present, such as is found in many Braconidae. This character, together with the very narrowly interrupted posterior carina of the mesosternum, allows this species to be readily distinguished from all others within the *pumilus* group.

Epitomus proximus sp. nov.

This species is very closely related to *Epitomus parvus* Thomson and therefore I give the description in the form of a comparative table with that species.

proximus

Q♂. Genal sulcus very weakly impressed. Gena with coriaceous sculpture behind the genal sulcus.

Face with rather even coriaceous sculpture laterally.

Head more shallowly impressed along the outer margin of the eye.

d. Lower frontal orbits sometimes conspicuously marked with yellow.

173, 189, England, Ireland, Sweden.

parvus

Genal sulcus distinctly impressed. Gena polished behind the genal sulcus.

Face with a polished area above the clypeus towards the genal sulcus.

Head deeply impressed along the outer margin of the eye.

Lower frontal orbits not marked with yellow.

303, 739, England, Ireland, Germany, Sweden.

HOLOTYPE. Q. Hym. 3b 1832. ENGLAND: Glos; Forest of Dean, High Meadow Woods, 9.vi.1936. (E. B. Britton and J. F. Perkins). (B.M.Coll.)

ALLOTYPE. S. IRELAND: Co. Kildare; 29. viii. 1937 (A. W. Stelfox). (B.M. Coll.)

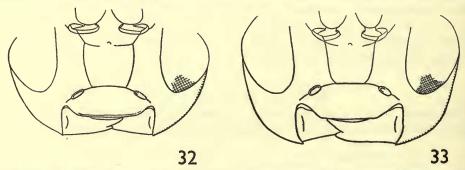
Paratypes. 163, 17 $^{\circ}$, England, Ireland, Sweden. (B.M.Coll. and A. W. Stelfox Coll.)

The form of the genal sulcus is usually a good character in separating species of Ichneumonidae, and it is for this reason that I have retained these forms as distinct, in spite of the paucity of other characters.

Mevesia guttata sp. nov.

Agreeing with arguta (Wesmael) in the form of the genal carina, which in both meets the hypostomal carina directly behind the base of the mandible, the large, deep clypeal pits, and also in having no white band on the flagellum; it differs from arguta in having the clypeus inflexed apically but with no flattened apical margin, the notauli very short, the frons more weakly intumescent, the petiolar area less strongly excavate, the genae more finely punctate ventrad, posteriorly, the abdomen with more distinct sculpture though strongly shining and with more distinct, large, sparse punctures; the male is more strongly sculptured than the female.

Q. Head with the temples sub-parallel behind the eyes and then broadly rounded to the vertical carina; frons and vertex closely punctate and in part coriaceous, the punctures becoming finer and sparse and with no microsculpture on the temples and very sparse on the genae;



Figs. 32, 33. Face to show clypeus: fig. 32, Mevesia arguta, Q; fig. 33, M. guttata, Q.

antennal scrobes trans-striate; face with the epistoma weakly convex and slightly elongate, more finely and more remotely punctured than the frons, the punctures becoming sparser on the face, laterally; clypeus convex, inflexed apically, with weak microsculpture and remotely punctate, and clearly separated from the epistoma (Fig. 33); malar space coriaceous and sparsely punctate, about half as long as breadth of base of mandible; antenna with 19–20 segments, the basal flagellar segments elongate, becoming sub-quadrate, quadrate at the 11th segment, the post-anellus with length: breadth about 2.5:1.

Thorax: pronotal collar rather short, the transverse groove deep and somewhat crenulate, the lateral groove and the hind margin striate, becoming punctate towards the upper margin and the hind angle; mesoscutum with the punctures similar to the vertex, but becoming close

anteriorly on the middle lobe, where there is microsculpture between the punctures; notauli deep anteriorly but shorter than in arguta: scutellum much more finely and more sparsely punctate than the disc of the mesoscutum; mesopleurum striate-punctate, the speculum polished, narrowly punctate above; sternaulus crenulate, extending nearly to the middle; mesosternum finely, closely, shallowly punctate; propodeum with the basal groove narrowed centrally, but broad on either side of the projection; area superomedia finely rugose, little transverse, rounded anteriorly, receiving the distinct costula at about the middle; all the areae enclosed except the basal area; area interna punctate-rugose, area dentipara rugose, area spiracularis rugose-striate, area petiolaris punctate-rugose, distinctly separated from the coarsely rugose areae externae, moderately excised; metapleurum with the area coxalis clearly delimited, striate-rugose; hind coxa with the dorsal groove obliquely striate, closely punctate laterally, the punctures becoming sparser apically, and somewhat weakly striate on the inner margin, beneath.

Gaster somewhat compressed apically; with the post-petiole coriaceous, sometimes with the coriaceous sculpture tending to run into longitudinal striae, and with very sparse, coarse punctures, the extreme apex polished, no delimited central area; tergite 2 with very broad thyridiae which are rather narrowly separated centrally, coriaceous, with the sculpture becoming obsolescent apically and with scattered punctures; the sculpture of the following tergites similar in kind to that of the 2nd, but much weaker; of the 5th and following tergite very weak indeed; hind wing with the nervellus opposite.

Colour: black; clypeus piceous, pale testaceous apically, mandible yellow with the teeth piceous, flagellum dull testaceous, fuscous above, basally; pronotal collar marked with piceous centrally and laterally, hind angle yellow marked, tegula yellow; legs red with the coxae black, the front coxa marked with pale testaceous beneath, the middle coxa narrowly pale marked apically, the trochanters infuscate dorsally, the femora sometimes more or less infuscate and the tarsi infuscate apically; gaster with the extreme apex of tergite I piceous to pale testaceous; tergite 2 testaceous with sub-apical, fuscous spots or band, which laterally join the lateral basal stripe, somewhat infuscate basally; tergite 3 with sub-apical spots or band; tergite 4 fuscous with a basal and apical testaceous band, the following segments more or less piceous apically; wings hyaline.

3. In general similar to the Ω , but with the sculpture of the abdomen (which is not compressed apically) more distinct; malar space shorter than in the Ω (about one-third breadth of base of mandible); antenna with 22 segments, with rather small tyloidae on segments 0-11; propodeum a little shorter, more coarsely sculptured and with the carina a little more strongly raised than in the Ω .

Colour; antenna black or fuscous, yellowish beneath apically; face and clypeus yellow, the genae not marked with yellow; hind angle of pronotum marked with yellow, tegula yellow; front and middle coxae mostly yellow, trochanters and trochantelli yellow, femora pale testaceous, very finely marked with light fuscous, tarsi pale testaceous, infuscate apically; hind coxa with a yellow apical spot, trochanter and trochantellus yellow, femur fuscous, somewhat testaceous basally, tibia and tarsus infuscate, the tibia darker basally and apically; gaster with the thyridiae, which extend almost completely across the segment, yellow; tergite I narrowly testaceous apically, tergite 2 testaceous apically, tergite 3 testaceous basally and apically, tergite 4 testaceous apically; the following tergites more or less testaceous apically. Length: 3 6 mm., 9 5–6 mm.

HOLOTYPE. Q. Hym. 3b 1833. England: Suffolk; Monks Soham, 8.v.1911 (C. Morley) (B.M.Coll.) (Previously det. as Diadromus collaris.)

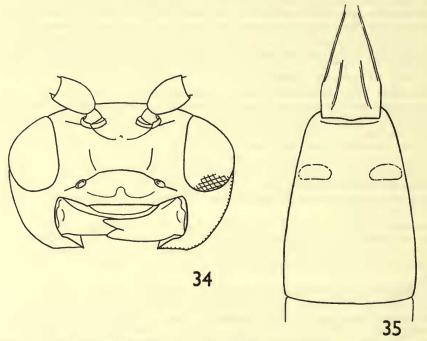
ALLOTYPE. J. ENGLAND: Capron Coll. (B.M.Coll.)

PARATYPES. ENGLAND: Herts; Tring, 1\operatorname{Q}, 2.v.1937 (R. B. Benson). (B.M. Coll.) 1\operatorname{Q}, 1052 (J. B. Bridgman). (Previously det. as macilentus Wesmael.) (Norwich Museum.)

PARAETHECERUS gen. nov. (Phaeogenini)

The single known species is elongate and of the general facies of Micrope Thomson.

Head with the mandibles bidentate, the shaft with the sides sub-parallel, and the lower tooth a little smaller and not far removed from the upper tooth; frons coriaceous with scattered punctures, with no antennal scrobes; face somewhat inflexed, the epistoma sub-quadrate and clearly divided from the clypeus by a rather deep groove; genal carina meeting the hypostomal carina (which is not very strongly raised) at a distance from the base of the mandible; gena not excavate posteriorly; clypeus strongly produced in the centre, with a wide excision in the lower margin of this protuberance, the apical margin flattened (Fig. 34); the face and malar space short; antenna weakly clavate, the scape not expanded basally nor flared apically.



Figs. 34, 35. Paraethecerus elongatus, Q: fig. 34, face to show clypeus; fig. 35, tergites I and 2 of gaster.

Thorax with a long pronotal collar; mesoscutum with short, weak notauli; mesosternum flattened, the sternauli reaching to about one-third the length of the mesosternum; posterior carina of mesosternum narrowly, but distinctly interrupted at the lateral angle; propodeum with a distinct dorsal and apical face, the area superomedia closed posteriorly, and the general sculpture of the propodeum becoming rugose; legs with the claws simple; wings rather narrow, front wing with the 2nd intercubital vein present but unpigmented, hind wing with the nervellus postfurcal.

Gaster somewhat clavate; tergite I not intumescent and not punctate; thyridiae large and distinct, well removed from the base of tergite 2, the gastrocoeli undifferentiated (Fig. 35); ovipositor sheaths rather broad and a little exserted; the hypopygium, apically, well removed from the apex of the ovipositor.

Only the ♀ known.

Type species Paraethecerus elongatus sp. nov.

Differs from Aethecerus in the form of the frons, scape and gena. In general facies and in the form of the frons, similar to Micrope, but that genus has an evenly convex clypeus and a more elongate and less inflexed face and longer malar space, and a strong, complete posterior carina of the mesosternum. Paraethecerus also has a resemblance to Centeterus and Eparces in general form, but differs in the clypeus and in the strong thyridiae.

Paraethecerus elongatus sp. nov.

Q. Head with the temples parallel behind the eyes, rather long and convex; face coriaceous with scattered punctures and tending to striation beneath the antennal sockets; clypeus with coarse punctures basally; genae and temples in greater part coriaceous, with scattered punctures; antenna with 17–18 segments, segment 3 a little shorter than 4 (3, length: breadth about 1.8:1; 4, length: breadth about 2:1).

Thorax: pronotum laterally with the groove weakly striate, evenly striate posteriorly, coriaceous dorsad with fine, indistinct punctures; mesoscutum clearly punctate, the punctures sparser in the middle of the lateral lobes, with sculpture between the punctures on the central lobe and on the disc; scutellum more finely and less closely punctate than on the disc of the mesoscutum, polished between the punctures; mesopleurum more closely and more coarsely punctate, the speculum punctate, a little more finely and less closely punctate on the mesosternum; propodeum with the area superomedia pentagonal, 1.6 to 2 times as long as broad at the junction with the more or less distinct costulae, which are received before the middle; the lateral carinae erased at least posteriorly; metapleurum coarsely, very closely punctate, the coxal area not differentiated; petiolar area not or rather weakly differentiated from the areae laterales; hind femur about 3.8 times as long as broad; hind coxa punctate, the punctures sparser apically, clear on the lower, inner margin, the dorsal groove coriaceous.

Gaster with the tergites coriaceous, the sculpture becoming very weak on tergites 5-7, tergites 2-4 with scattered punctures; post-petiole with the central area more or less indicated.

Colour: black; clypeus in part red, mandibles in greater part pale testaceous, antenna testaceous, infuscate apically, sometimes also fuscous marked above, basally; pronotum sometimes with the collar red marked, hind angles sometimes red marked, apex of prosternum sometimes red marked, tegula pale testaceous; legs red, coxae sometimes infuscate basally, middle and hind tibiae narrowly infuscate basally and apically, hind femur infuscate apically, the tarsi with the apical segment infuscate.

Length: 5 mm. dunknown.

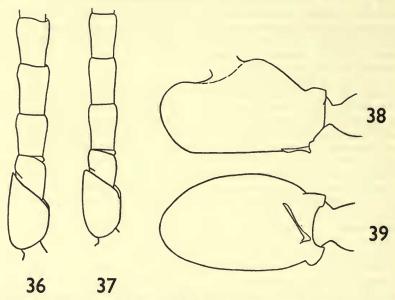
HOLOTYPE. Q. Hym. 3b 1834. England: Suffolk; Brandon, 7.vi.1903 (C. Morley). (B.M.Coll.) (det. as Aethecerus longulus Wesmael by C. Morley.)
PARATYPE. Q. GERMANY (Ruthe). (B.M.Coll.)

Phaeogenes foveolatus sp. nov.

This species belongs to the *Phaeogenes fulvitarsis* group (section F. of Thomson), and is most closely related to *fulvitarsis* Wesmael (syn. *ruficoxa* Thomson) and *rusticatus* Wesmael (syn. *fulvitarsis* auctt. angl.); it is probably the species that Thomson determined as *rusticatus*. It differs from *fulvitarsis* in having the inner tooth of the carina of the hind coxa arising distinctly before the hind margin, the 4th

segment of the antenna a little shorter than the distance between the posterior ocelli, the flagellum stouter, and the notauli at most faintly indicated behind the pit on the anterior margin of the mesoscutum.

Q. Head with the temples roundedly narrowed behind the eyes; hind ocellus about twice as far from the occipital carina as its greatest diameter; frons with the antennal scrobes weakly, obliquely striate, clearly punctate dorsad and on the vertex, the punctures sparser on the temples; epistoma convex, not sharply differentiated from the rest of the face, punctate, the punctures becoming sparser towards the orbits; gena more clearly punctate than the temples, malar space in part coriaceous and punctate, about half as long as breadth of base of mandible; clypeus convex, with a sub-apical ridge which is interrupted centrally by punctures and coriaceous



Figs. 36-39. Basal antennal segments: fig. 36, Phaeogenes foveolatus, Q; fig. 37, P. fulvitarsis, Q. Hind coxa of P. foveolatus, Q: fig. 38, lateral; fig. 39, ventral.

sculpture (as in all species of this group); hypostomal carina strongly raised, the genal carina meeting this at a distance behind the base of the mandible less than the length of the malar space; gena not excavate; antenna somewhat stout apically, the post-anellus at most equal to the distance between the posterior ocelli (Fig. 36); antenna with 23–25 segments (24 in 9 out of 14 specimens).

Thorax: pronotal collar well developed, the transverse groove distinct, the lateral groove and the lower part of the hind margin striate, above this rather coarsely punctate; notauli represented by a deep anterior pit, behind this rarely with a very short, hardly traceable impression; mesoscutum with rather coarse, clear punctures on the disc, more finely and sparsely punctate on the lateral lobes; scutellum a little more finely punctate than the disc of the mesoscutum, more coarsely punctate than the lateral lobes; mesopleurum punctate, becoming punctate-striate behind, the speculum for the most part with sparse, rather coarse punctures; sternauli shallow and inconspicuously crenulate, hardly extending to half; mesosternum more finely punctured than the pleurum; propodeum with all the areae distinct, the area superomedia elongate, hexagonal, receiving the costula well before the middle, weakly rugose; area interna

and area dentipara weakly rugose and punctate, area petiolaris trans-striate-punctate, aera externa rugose, area spiracularis striate-punctate; metapleurum punctate, striate in part; hind coxa with an oblique, sub-apical carina, which is very weakly, broadly raised externally, and more sharply raised internally, the area before the carina very finely punctate with only a faint indication of oblique striation (Figs. 38–39).

Gaster with the post-petiole weakly coriaceous in part, sometimes in part longitudinally striate, and sometimes with a few scattered punctures; thyridiae broad, and about as far from the base of the 2nd tergite as their length; tergites 2 and 3 coriaceous with few, widely scattered punctures; tergite 4 similarly but more weakly sculptured, the following segments becoming progressively smoother; hind wing with the nervellus opposite, or slightly postfurcal.

Colour: black; mandibles pale testaceous except for the teeth; antenna with the scape and pedicel black, varying to broadly testaceous beneath; 3 or 4 basal flagellar segments testaceous; a white stripe usually on antennal segments 9–12, sometimes reduced, and in 2 German specimens on segments 8–12; legs red, pale testaceous in part, the hind femur and sometimes the hind coxa infuscate apically, the hind tibia rather narrowly infuscate basally and apically, and the apical tarsal segments infuscate; gaster with tergite 1 narrowly pale apically; tergites 3–5 entirely red, the following segments narrowly piceous apically.

3. Similar to the Q in general sculpture, and also with the notauli only clearly represented by the anterior pit; antenna with 27 segments, tyloidae on segments 10-13/14, the basal segments a little shorter than in *rusticatus*; clypeus marked with yellow; legs similar in colour to those of the Q but the coxae and hind trochanter can be extensively black marked, and the hind tarsus is fuscous, with the basal segments narrowly pale basally; gaster with only the apices of the central segments narrowly testaceous, and more strongly coriaceous and punctate than in the Q.

Length: ♂ 5 mm.; ♀ 5-6 mm.

HOLOTYPE. Q. Hym. 3b 1835. England: Surrey; Boxhill, 9.v.1891 (T. R. Billups). (B.M.Coll.)

ALLOTYPE. J. ENGLAND: Surrey; Horsley, 24. vii. 1949 (J. F. Perkins) (B.M.Coll.)

Paratypes. England: Kent; Deal, 4%, 2.viii.1880; 1%, 8.viii.1880 (T. R. Billups); Surrey; 1%, same data as allotype. Scotland: Inverness; Aviemore, 1%, 4.vi.1952 (R. B. Benson). Ireland: Co. Dublin; Slade of Saggart, 1%, 4.x.1936 (A. W. Stelfox); Co. Wicklow; Dunran, 1%, 25.v.1937 (A. W. Stelfox). Sweden: Skåne; Ringsjön, 1%, 4.vi.1938 (J. F. Perkins). Germany: 3% (Ruthe). (B.M.Coll.) Finland: Kuusamo; Paanajärvi Rajala, 1%, 5.vii.1935, beaten from Picea (G. J. Kerrich). (Helsinki Museum.)

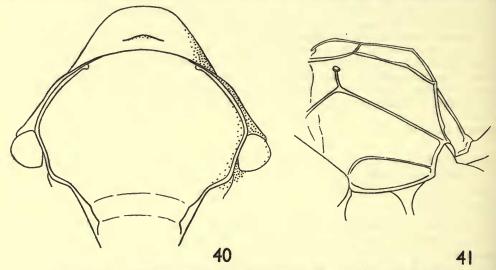
Phaeogenes (Proscus) coriaceus sp. nov.

Similar to *elongatus* Thomson, but differing in the more coarsely coriaceous sculpture of the gaster, with only sparse punctures on the 2nd tergite.

Q. Head with the temples slightly diverging directly behind the eyes, rather strongly convex; frons and vertex coarsely punctate, the punctures becoming finer on the temples, the antennal scrobes trans-striate; face with the epistoma convex, punctate at least laterally and dorsad, the rest of the face punctate with the punctures becoming coarser and sparser towards the orbits; clypeus strongly transverse, sparsely punctate; hypostomal carina narrow; lower tooth of mandible a little smaller and shorter than the upper; antenna with 20–22 segments, the post-anellus very slightly shorter than the following segment.

ENTOM. III, 4.

Thorax: pronotum with a broad collar (Fig. 40) centrally with the transverse groove very shallow, the lateral furrow irregularly trans-striate, the posterior margin more or less striate, strongly punctate dorsad; mesoscutum with the notauli very short, rather coarsely punctate, polished between the punctures except on the middle lobe anteriorly; scutellum much more finely punctate than the disc of the mesoscutum; mesopleurum coarsely punctate, punctate-striate anteriorly, ventrad, the speculum with punctures only along the posterior margin; sternaulus crenulate extending almost halfway to the posterior carina; mesosternum more finely punctate, the posterior carina broadly interrupted before the lateral angle; propodeum (Fig. 41) with the area superomedia elongate, hexagonal, receiving the costula well before the middle; all the areae clearly differentiated; basal area with the tubercle distinct, punctate basally becoming rugose laterally and apically, the area superomedia weakly or very weakly, irregularly trans-striate, the area petiolaris punctate-trans-striate and the area coxalis punctate; hind coxa with the dorsal furrow almost devoid of sculpture, rugose dorsally at the base, punctate outwardly and beneath, the punctures becoming a little coarser and sparser apically and finer



Figs. 40, 41. Phaeogenes coriaceus, Q: fig. 40, thorax dorsally to show pronotal collar; fig. 41, propodeum laterally.

on the inner margin, unarmed; hind femur about three times as long as broad; wings with the nervellus postfurcal.

Gaster with the post-petiole more or less coriaceous and longitudinally striate; tergites 2 and 3 very strongly coriaceous, 2 with sparse punctures, 3 with punctures closer, basally; tergite 4 a little less strongly coriaceous and with the punctures similar, though weaker, to those on 3; the following tergites weakly coriaceous, 5 and 6 weakly punctate basally.

Colour: black; face usually with a yellow spot on the lower, outer part of the antennal socket, sometimes also marked with red laterally; clypeus red apically, often ivory in the lateral angles; mandibles in large part pale testaceous; scape sometimes reddish beneath, basal flagellar segments more or less marked with red, segments II and I2 sometimes white marked; thorax with the pronotal collar more or less marked with red or yellow centrally, tegula pale testaceous; legs red, with the front and/or middle coxae infuscate basally, hind coxa usually black basally; the trochanters often in part more or less yellow, hind trochanter sometimes infuscate; hind femur infuscate apically, hind tibia infuscate at base and apex; tarsi with the apical segment infuscate and on the hind leg usually with all the segments more or less fuscous

marked; wings hyaline, very weakly smoky apically, the stigma black; gaster with the apex

of tergite 1 and tergites 2-4 red, the following tergites piceous apically.

3. Similar to the \mathcal{Q} , but with the temples less broad, the face longer and the epistoma hardly differentiated, the malar space shorter; antenna with 26 segments, segments 7-15 with large tyloidae; thorax less elongate; hind femur a little thinner (length: breadth about 3.4:1); gaster with the post-petiole shining, more rugose.

Face, clypeus and malar space yellow; scape and pedicel yellow marked beneath, flagellum fuscous, yellowish beneath; front and middle coxae and trochanters yellow, the femora and tibiae marked with yellow; hind coxa black basally though red to yellow apically, hind trochanter and trochantellus yellow, hind femur not fuscous apically; gaster with tergites 2, 3 and 4 black or fuscous marked dorsally.

Length: ♂ 7 mm., ♀ 5-7 mm.

HOLOTYPE. Q. Hym. 3b 1836. ENGLAND: Hants; New Forest, Denny, on dead beech 6.vi.1934 (C. Morley). (B.M.Coll.) (Aethecerus dispar Wesmael det. C. Morley.)

ALLOTYPE. J. ENGLAND: Hants; New Forest, Denny wood, on dead beech, 7.vii.1940 (C. Morley). (B.M.Coll.) (Centeterus opprimator Gravenhorst det. C. Morley).

PARATYPES. ENGLAND: Hants; New Forest, 19, 17.vii.38 (Phaeogenes suspicax det. C. Morley); 19, 9.vi.1934 (Aethecerus dispar det. C. Morley) (C. Morley). (C. Morley Coll.) Germany: 19, (Ruthe). (B.M.Coll.)

XII. CHECK LIST OF BRITISH ICHNEUMONINAE

The changes to the British List of Ichneumoninae, which have been dealt with in the preceding pages, are here brought together. So many points remain unsolved that this list can, at most, be considered as a basis for further change. There are also certain matters which should be made clear. I have used Amblyteles in the sense of Thomson and have not accepted the segregates that are recognized by Heinrich. I have examined the male genitalia of those European and North American species which are available to me for dissection and find that in some cases these show quite striking group characters; however, in certain of these groups I have so far been unable to correlate the differences with other satisfactory characters, so I prefer to place the species in one genus as they all have a number of characters in common, and to wait for a much wider investigation before accepting the segregates. It should, perhaps, be pointed out that under Triptognathus other workers have assembled two quite divergent elements; and that the male genitalia of Amblyteles subsericans and elongatus are essentially similar, though showing also the only reliable differences of which I know for separating the males of these two species, so that either both have to be included in Limerodops or both retained in Amblyteles.

Certain placements of genera within tribes are obviously unsatisfactory; *Hypomecus*, *Apaeleticus*, *Goedartia*, *Hepiopelmus* and *Acolobus* I have retained in the tribes in which they have been placed by recent authors; *Tricholabus*, which seems to me to be a completely anomalous genus, I have included in the Ichneumonini. The Phaeogenini, too, contains very diverse elements, and are grouped together on

very superficial characters. I have also retained the Heresiarchini as a separate tribe; if these are placed in the Protichneumonini as Heinrich has proposed, then this latter name will be a synonym of Heresiarchini, though the position concerning the names of the higher categories has not yet been completely clarified by the International Commission on Nomenclature.

It will be seen that a few dates, particularly earlier ones, differ from those given in Kloet and Hincks' list; in these cases I have followed the findings of Sherborn. In addition to this, I have accepted the date of Holmgren's fascicle on Phaeogenini as being 1889 as given by Kloet and Hincks, and not 1890 as quoted by Dalla Torre and on the title-page to the complete volume of Holmgren's Ichneumoninae; Sharp, in the Zoological Record, decided, on the evidence available to him, that 1889 was correct.

TROGINI

TROGUS Panzer, 1806. lapidator (Fabricius, 1787).

PSILOMASTAX Tischbein, 1868. CERCODINOTOMUS Uchida, 1940. pyramidalis Tischbein, 1868. pictus (Kriechbaumer, 1882).

Callajoppa Cameron, 1903. cirrogastra (Schrank, 1781). exaltatoria (Panzer, 1804).

PROTICHNEUMONINI

Protichneumon Thomson, 1893. pisorius (Linnaeus, 1758). coqueberti (Wesmael, 1848). erythrogaster (Stephens, 1835). nec (Gmelin, 1790).

AmblyJoppa Cameron, 1902. fuscipennis (Wesmael, 1844). proteus (Christ, 1791). laminatoria (Fabricius, 1798).

COELICHNEUMON Thomson, 1893.
cyaniventris (Wesmael, 1859).
desinatorius (Thunberg, 1822).
subguttatus (Gravenhorst, 1829).
leucocerus (Gravenhorst, 1820).
falsificus (Wesmael, 1844).
auspex (Mueller, 1776).
nigerrimus (Stephens, 1835).
derasus (Wesmael, 1844).
bilineatus (Gmelin, 1790).
haemorrhoidalis (Gravenhorst, 1820).

truncatulus (Thomson, 1886).
solutus (Holmgren, 1864).
impressor (Zetterstedt, 1838).
consimilis (Wesmael, 1844).
purpurissatus Perkins, 1953.
nigrator (Fabricius, 1793).
nec (Mueller, 1776).
comitator (Linnaeus, 1758).
ferreus (Gravenhorst, 1829).
microstictus (Gravenhorst, 1829).
serenus (Gravenhorst, 1820).
ruficauda (Wesmael, 1844).
orbitator (Thunberg, 1822).

HERESIARCHINI

HERESIARCHES Wesmael, 1859. eudoxius (Wesmael, 1844).

LISTRODROMINI

NEOTYPUS Foerster, 1868. nobilitator (Gravenhorst, 1807).

LISTRODROMUS Wesmael, 1844. nycthemerus (Gravenhorst, 1820).

ANISOBAS Wesmael, 1844. cingulatorius (Gravenhorst, 1820). platystylus Thomson, 1888.

ICHNEUMONINI

Hoplismenus Gravenhorst, 1829. bidentatus (Gmelin, 1790). spinosus (Morley, 1903). maurus (Marshall, 1873). bispinatorius auctt. angl.

Ichneumonini-cont.

albifrons Gravenhorst, 1829. armatorius (Fabricius, 1787). nec (Forster, 1771).

STENICHNEUMON Thomson, 1893. culpator (Schrank, 1802). militarius (Thunberg, 1822). rufinus (Gravenhorst, 1820). lineator (Fabricius, 1781). trilineatus (Gmelin, 1790). scutellator (Gravenhorst, 1829).

Aoplus Tischbein, 1874.

altercator (Wesmael, 1855).

defraudator (Wesmael, 1844).

castaneus (Gravenhorst, 1820).

ratzeburgii (Hartig, 1838).

virginalis (Wesmael, 1844).

ochropis (Gmelin, 1790).

rubricosus (Holmgren, 1864).

ruficeps (Gravenhorst, 1829).

humilis (Wesmael, 1857).

PLATYLABOPS Heinrich, 1950. apricus (Gravenhorst, 1820). semirufus (Desvignes, 1856). pulchellatus (Bridgman, 1889).

CRATICHNEUMON Thomson, 1893. magus (Wesmael, 1855). nitidus (Bridgman, 1886). varipes (Gravenhorst, 1829). fallax Habermehl, 1923. jocularis (Wesmael, 1848). dissimilis auctt. angl. punctifrons (Holmgren, 1864). rufifrons (Gravenhorst, 1829). sicarius (Gravenhorst, 1829). foersteri (Wesmael, 1848). luteiventris (Gravenhorst, 1820). versator (Thunberg, 1822). nigritarius (Gravenhorst, 1820). albifrons (Stephens, 1835). gravenhorstii (Boyer de Fonscolombe, 1847). nec (Wesmael, 1836). nec (Guérin-Ménéville, 1838).

infidus (Wesmael, 1848).
liostylus (Thomson, 1887).
culex (Mueller, 1776).
clarigator (Wesmael, 1844).
fugitivus (Gravenhorst, 1829).
corruscator (Linnaeus, 1758).

fabricator maculifrons (Stephens, 1835).

semirufus (Gravenhorst, 1820). pseudocryptus (Wesmael, 1857). albilarvatus (Gravenhorst, 1820). lanius (Gravenhorst, 1829).

EUPALAMUS Wesmael, 1844. wesmaeli Thomson, 1886. lacteator (Gravenhorst, 1829).

Eristicus Wesmael, 1844. clericus (Gravenhorst, 1829).

BARICHNEUMON Thomson, 1893. anator (Fabricius, 1793). gemellus (Gravenhorst, 1829). carri Habermehl, 1923. albilineatus (Gravenhorst, 1820). albolineatus (Gravenhorst, 1829). bimaculatus (Schrank, 1776). saturatorius (Linnaeus, 1758). monostagon (Gravenhorst, 1820). maculicauda Perkins, 1953. perscrutator (Wesmael, 1844). nec (Thunberg, 1822). dumeticola (Gravenhorst, 1829). faunus (Gravenhorst, 1829). albosignatus (Gravenhorst, 1829). digrammus (Gravenhorst, 1820). nudicoxa (Thomson, 1888). sanguinator (Rossi, 1794). leucocheilus (Wesmael, 1844). peregrinator (Linnaeus, 1758). heracleanae (Bridgman, 1884). praeceptor (Thunberg, 1822). bilunulatus auctt. angl. derogator (Wesmael, 1844). chionomus (Wesmael, 1844). plagiarius (Wesmael, 1848). deceptor (Scopoli, 1763). vestigator (Wesmael, 1844). nec (Thunberg, 1822). lepidus (Gravenhorst, 1829). tergenus (Gravenhorst, 1820). callicerus (Gravenhorst, 1820). coxiglyptus Heinrich, 1951. incubitor auctt. angl. citator (Thunberg, 1822). basiglyptus (Kriechbaumer, 1890). locutor (Thunberg, 1822). ridibundus (Gravenhorst, 1829).

CHASMIAS Ashmead, 1900. motatorius (Fabricius, 1775). paludator (Desvignes, 1854). paludicola (Wesmael, 1857).

Ichneumonini-cont.

ICHNEUMON Linnaeus, 1758. lugens Gravenhorst, 1829. sarcitorius Linnaeus, 1758. lautatorius Desvignes, 1856. xanthorius Forster, 1771. deliratorius Linnaeus, 1758. molitorius Linnaeus, 1761. crassifemur Thomson, 1886. melanotis Holmgren, 1864. macrocerus Thomson, 1886. confusor Gravenhorst, 1820. confusorius Gravenhorst, 1829. bucculentus Wesmael, 1844. septentrionalis atrifemur Perkins, 1953. ligatorius Thunberg, 1822. suspiciosus Wesmael, 1844. extensorius Linnaeus, 1758. militaris auctt. angl. gracilentus Wesmael, 1844. albiger, Wesmael, 1844. tempestivus Holmgren, 1864. validicornis Holmgren, 1864. albicollis Wesmael, 1857. stramentarius Gravenhorst, 1820. terminatorius Gravenhorst, 1820. computatorius Mueller, 1776. eurycerus Thomson, 1890. fuscatus Gravenhorst, 1829. rufidorsatus Bridgman, 1887. memorator Wesmael, 1844. latrator Fabricius, 1781. subquadratus Thomson, 1887. analis Gravenhorst, 1829. spurius Wesmael, 1848. primatorius Forster, 1771. bellipes Wesmael, 1844. didymus Gravenhorst, 1829. tuberculipes Wesmael, 1848. megapodius Heinrich, 1949. formosus Gravenhorst, 1829. obsessor Wesmael, 1844. haglundi Holmgren, 1864. microcephalus Stephens, 1835. quartanus Perkins, 1953. gracilicornis Gravenhorst, 1829. emancipatus Wesmael, 1844. exilicornis Wesmael, 1857. caloscelis Wesmael, 1844. insidiosus Wesmael, 1844. minutorius Desvignes, 1856. captorius Thomson, 1887. nec Thunberg, 1822. caproni Perkins, 1953.

nereni Thomson, 1887.
ignobilis Wesmael, 1855.
aquilonius Perkins, 1953.
vulneratorius Zetterstedt, 1838.
walkeri Wesmael, 1848.
haereticus (Wesmael, 1854).
cessator Mueller, 1776.

THYRATELES Perkins, 1953. camelinus (Wesmael, 1844).

Probolus Wesmael, 1844. culpatorius (Linnaeus, 1758). concinnus Wesmael, 1853.

CTENICHNEUMON Thomson, 1894.
edictorius (Linnaeus, 1758).
divisorius (Gravenhorst, 1820).
inspector (Wesmael, 1844).
rubroater (Ratzeburg, 1852).
melanocastanus auctt. angl.
nitens (Christ, 1791).
devylderi (Holmgren, 1871).
repentinus auctt. angl.
messorius (Gravenhorst, 1820).
funereus (Geoffroy, 1785).
panzeri (Wesmael, 1844).
flavocinctus (Desvignes, 1856).
castigator (Fabricius, 1793).

SPILICHNEUMON Thomson, 1894.
occisorius (Fabricius, 1793).
johansoni (Holmgren, 1871).
stagnicola (Thomson, 1888).
celenae Perkins, 1953.
raptorius (Linnaeus, 1758).
septemguttatus (Gravenhorst, 1829).

AMBLYTELES Wesmael, 1844. punctus (Gravenhorst, 1829). nec (Shaw, 1798). fabricii (Schrank, 1802). armatorius (Forster, 1771). propinguus Perkins, 1953. crispatorius (Linnaeus, 1758). glaucatorius (Fabricius, 1793). pictus (Schrank, 1776). ? laboratorius (Mueller, 1776). vadatorius (Illiger, 1807). pallidicornis (Gravenhorst, 1829). pulchellus (Christ, 1791). negatorius (Fabricius, 1793). equitatorius (Panzer, 1786). mercatorius (Fabricius, 1793).

Ichneumonini-cont.

monitorius (Panzer, 1801). quadripunctorius (Mueller, 1776). castanopyga (Stephens, 1835). amatorius (Mueller, 1776). luctatorius (Linnaeus, 1758). longigena Thomson, 1888. cerinthius auctt. angl. gradatorius (Thunberg, 1822). trifasciatus (Gravenhorst, 1829). palliatorius (Gravenhorst, 1829). margineguttatus (Gravenhorst, 1829). oratorius (Fabricius, 1793). indocilis Wesmael, 1844. subsericans (Gravenhorst, 1820). elongatus Brischke, 1878. subsericans var. elongatus Brischke, 1878.

LIMERODES Wesmael, 1844. arctiventris (Boie, 1841).

EXEPHANES Wesmael, 1844.
ischioxanthus (Gravenhorst, 1829).
hilaris (Gravenhorst, 1829).
nec (Say, Jan. 1829).
occupator (Gravenhorst, 1829).
caelebs Kreichbaumer, 1890.
amabilis Kreichbaumer, 1895.

Acolobus Wesmael, 1844. albimanus (Gravenhorst, 1829). sericeus Wesmael, 1844.

Hepiopelmus Wesmael, 1844. variegatorius (Panzer, 1800). leucostigmus (Gravenhorst, 1820).

TRICHOLABUS Thomson, 1894. strigatorius (Gravenhorst, 1829).

EURYLABINI

GOEDARTIA Boie, 1841. alboguttata (Gravenhorst, 1829).

EURYLABUS Wesmael, 1844. larvatus (Christ, 1791). torvus Wesmael, 1844. tristis (Gravenhorst, 1829).

ZIMMERINI

ZIMMERIA Heinrich, 1933. dirus (Wesmael, 1853).

PLATYLABINI

RHYSSOLABUS Berthoumieu, 1896. arcticus Hellén, 1942.

Pristiceros Gravenhorst, 1829. serrarius Gravenhorst, 1829. infractorius (Linnaeus, 1761).

PLATYLABUS Wesmael, 1844. nigrocyaneus (Gravenhorst, 1829). tenuicornis (Gravenhorst, 1829). histrio Wesmael, 1855. variegatus Wesmael, 1844. dolorosus (Gravenhorst, 1829). rufus Wesmael, 1844. gigas Kreichbaumer, 1886. transversus Bridgman, 1889. punctifrons Thomson, 1888. intermedius Holmgren, 1871. opaculus Thomson, 1888. pedatorius (Fabricius, 1793). obator (Desvignes, 1856). stolidus Perkins, 1953. odiosus Perkins, 1953. iridipennis (Gravenhorst, 1829). pumilio Holmgren, 1871. rufiventris Wesmael, 1844. vibratorius (Thunberg, 1822). decipiens Wesmael, 1848. tricingulatus (Gravenhorst, 1820). concinnus Thomson, 1888.

ASTHENOLABUS Heinrich, 1951. STENOLABUS Heinrich, 1936. nec Schulthess-Rechberg, 1910. vitratorius (Gravenhorst, 1829). latiscapus (Thomson, 1894).

CYCLOLABUS Heinrich, 1935. nigricollis (Wesmael, 1844). pactor (Wesmael, 1844). dubiosus Perkins, 1953.

Ectopius Wesmael, 1859. rubellus (Gmelin, 1790). exhortator (Fabricius, 1787).

Hypomecus Wesmael, 1844. quadriannulatus (Gravenhorst, 1829).

APAELETICUS Wesmael, 1844. inimicus (Gravenhorst, 1820). bellicosus Wesmael, 1844. inclytus Wesmael, 1853.

PHAEOGENINI

RHEXIDERMUS FOErster, 1868. ISCHNOPSIDEA Viereck, 1914. nigricollis (Wesmael, 1844). rufipes (Wesmael, 1848). thoracicus (Gravenhorst, 1829).

HETERISCHNUS Wesmael, 1859. pulex (Mueller, 1776). rufipes auctt.

MISETUS Wesmael, 1844. oculatus Wesmael, 1844.

HEMICHNEUMON Wesmael, 1857. elongatus (Ratzeburg, 1852).

TRACHYARUS Thomson, 1891. corvinus Thomson, 1891.

Nematomicrus Wesmael, 1844. tenellus Wesmael, 1844.

Stenodontus Berthoumieu, 1896. marginellus (Gravenhorst, 1829).

ERIPLATYS Foerster, 1868.

MELANOMICRUS Morley, 1903.

ardeicollis (Wesmael, 1844).

elliotti (Morley, 1903).

Herpestomus Wesmael, 1844. wesmaeli Perkins, 1953. nasutus Wesmael, 1844. furunculus Wesmael, 1844. intermedius Wesmael, 1844. arridens (Gravenhorst, 1829). xanthops (Gravenhorst, 1829). brunnicornis (Gravenhorst, 1829).

DICAELOTUS Wesmael, 1844.
(incl. Deloglyptus Foerster, 1868).
pudibundus (Wesmael, 1844).
punctiventris (Thomson, 1891).
pictus (Schmiedeknecht, 1903).
parvulus (Gravenhorst, 1829).
orbitalis Thomson, 1891.
ruficoxatus (Gravenhorst, 1829).
fitchi Perkins, 1953.
erythrostomus Wesmael, 1844.
inflexus Thomson, 1891.
? rufilimbatus (Gravenhorst, 1820).
rufoniger Berthoumieu, 1896.
pumilus var. rufoniger Berthoumieu, 1896.

cameroni Bridgman, 1881. pumilus (Gravenhorst, 1829). morosus Wesmael, 1855. suspectus Perkins, 1953.

EPITOMUS Foerster, 1868.

parvus Thomson, 1891.

pygmaeus (Brischke, 1890, nec 1888).

proximus Perkins, 1953.

ORONOTUS Wesmael, 1844. binotatus (Gravenhorst, 1829).

Notosemus Foerster, 1868. bohemani (Wesmael, 1855). albibuccus (Kreichbaumer, 1890).

MEVESIA Holmgren, 1889. arguta (Wesmael, 1844). guttata Perkins, 1953.

THYRAEELLA Holmgren, 1889. collaris (Gravenhorst, 1829). similis (Bridgman, 1881).

DIADROMUS Wesmael, 1844.
quadriguttatus (Gravenhorst, 1829).
rubellus (Gravenhorst, 1829).
ex parte.

nec (Gmelin, 1790).
troglodytes (Gravenhorst, 1829).
subtilicornis (Gravenhorst, 1829).
tenax Wesmael, 1844.
varicolor Wesmael, 1844.
albinotatus (Gravenhorst, 1829).
candidatus (Gravenhorst, 1829).
guttulatus (Gravenhorst, 1829).

Colpognathus Wesmael, 1844. celerator (Gravenhorst, 1807). divisus Thomson, 1891.

CENTETERUS Wesmael, 1844. confector (Gravenhorst, 1829). opprimator (Gravenhorst, 1820).

Eparces Foerster, 1868. grandiceps Thomson, 1891.

MICROPE Thomson, 1891. macilenta (Wesmael, 1844).

OIORHINUS Wesmael, 1844. pallipalpis Wesmael, 1844.

Phaeogenini -cont.

PARAETHECERUS Perkins, 1953. elongatus Perkins, 1953.

AETHECERUS Wesmael, 1844. dispar Wesmael, 1844. nitidus Wesmael, 1844. placidus Wesmael, 1844. discolor Wesmael, 1844. longulus Wesmael, 1844.

OROTYLUS Holmgren, 1889. mitis (Wesmael, 1848).

PHAEOGENES Wesmael, 1844. (incl. Proscus Holmgren, 1889). semivulpinus (Gravenhorst, 1829). planifrons Wesmael, 1844. heterogonus Holmgren, 1889. curator (Thunberg, 1822). crassidens Thomson, 1891. melanogonos (Gmelin, 1790). melanogonus (Gravenhorst, 1820), emend. ophthalmicus Wesmael, 1844. stipator Wesmael, 1855. maculicornis (Stephens, 1835). scutellaris Wesmael, 1844. invisor (Thunberg, 1822). homochlorus Wesmael, 1844. mysticus Wesmael, 1855.

callopus Wesmael, 1844. tibiator (Thunberg, 1822). nec (Gravenhorst, 1820). fulvitarsis Wesmael, 1844. ruficoxa Thomson, 1891. rusticatus Wesmael, 1844. fulvitarsis auctt. angl. ex parte. foveolatus Perkins, 1953. cephalotes Wesmael, 1844. elongatus Thomson, 1891. coriaceus Perkins, 1953. suspicax Wesmael, 1844. flavidens Wesmael, 1844. modestus Wesmael, 1844. impiger Wesmael, 1844. ischiomelinus (Gravenhorst, 1829). eques Wesmael, 1844. distinctus (Bridgman, 1887). infimus Wesmael, 1844. fuscicornis Wesmael, 1844. trepidus Wesmael, 1844. bellicornis Wesmael, 1844. osculator (Thunberg, 1822). socius Holmgren, 1889.

ALOMYINI

ALOMYA Panzer, 1806. semiflava Stephens, 1835. debellator (Fabricius, 1775).

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Note.—Where the references to original descriptions are not quoted above, they may be found by consulting Dalla Torre (1902), Morley (1903), and Schmiedeknecht (1902) and (1928–1932).

